

FIG. 1B

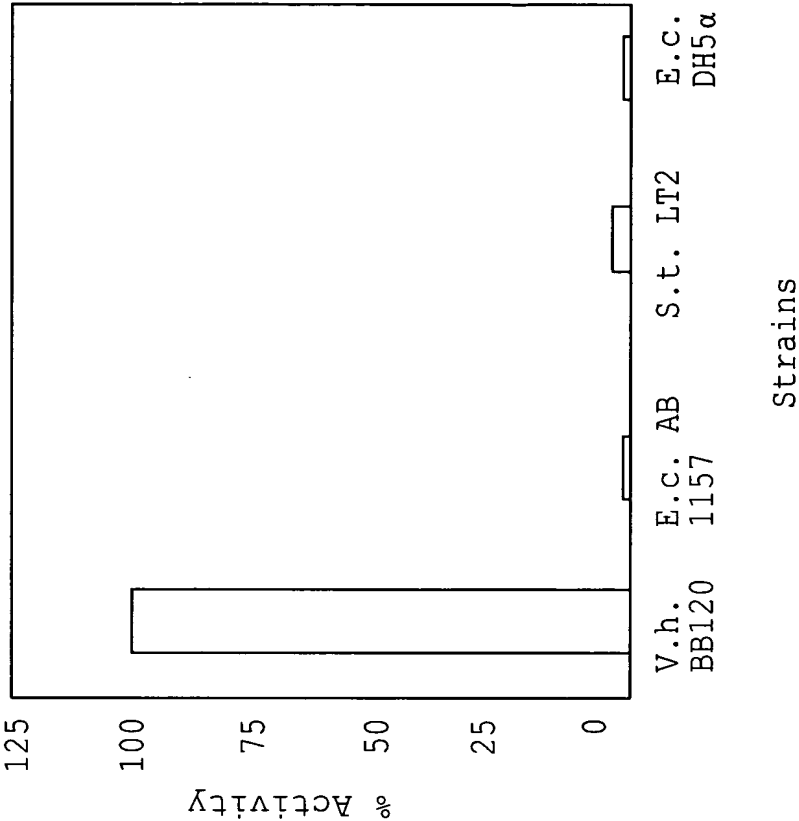


FIG. 1A

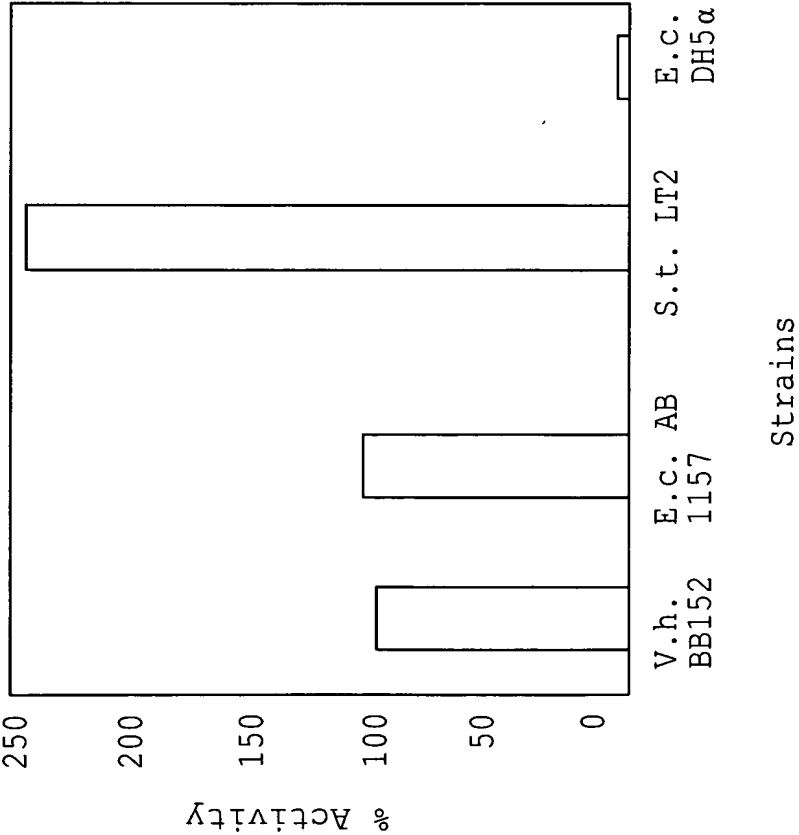
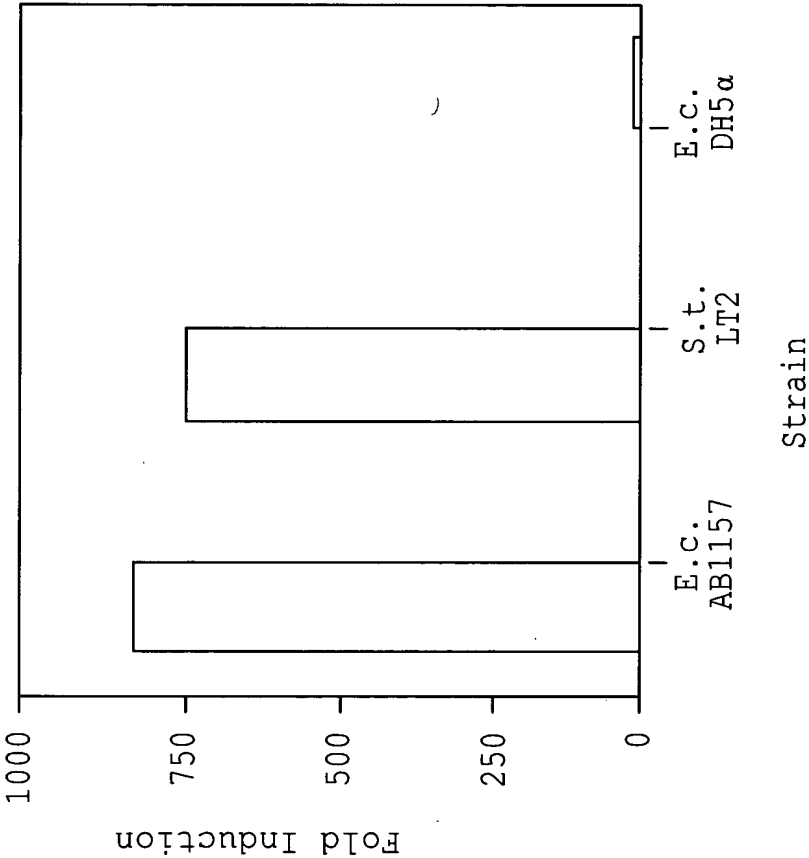


FIG. 2



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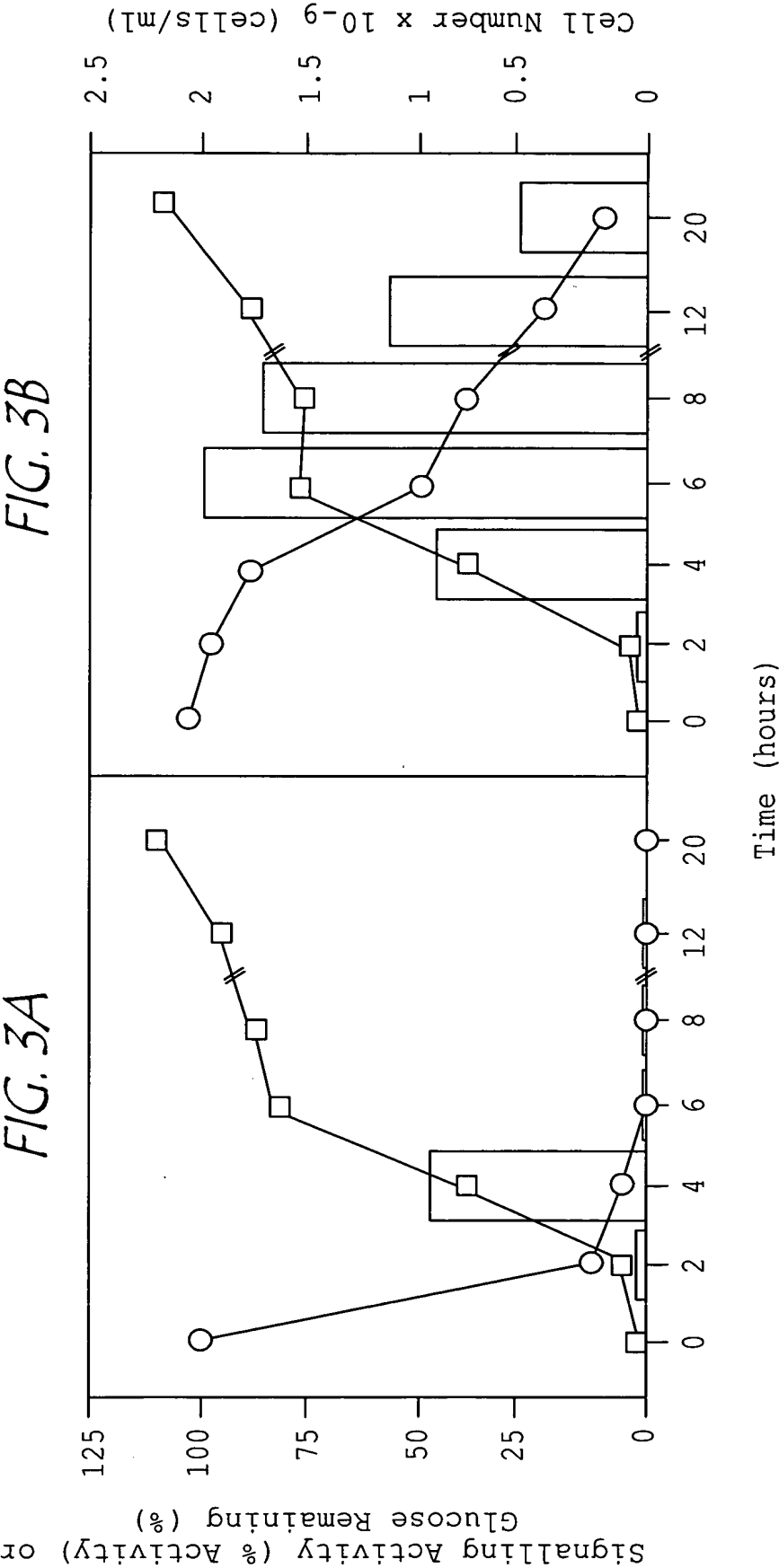
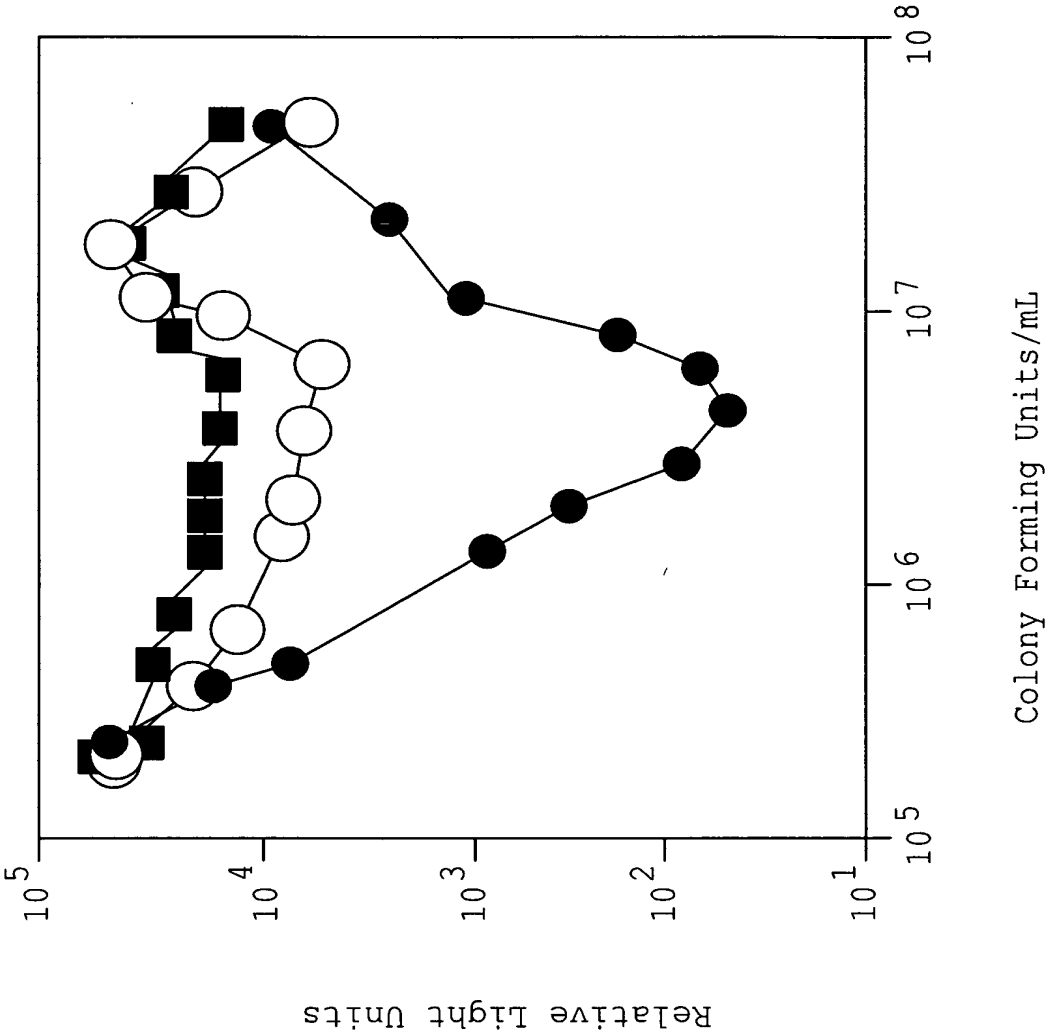
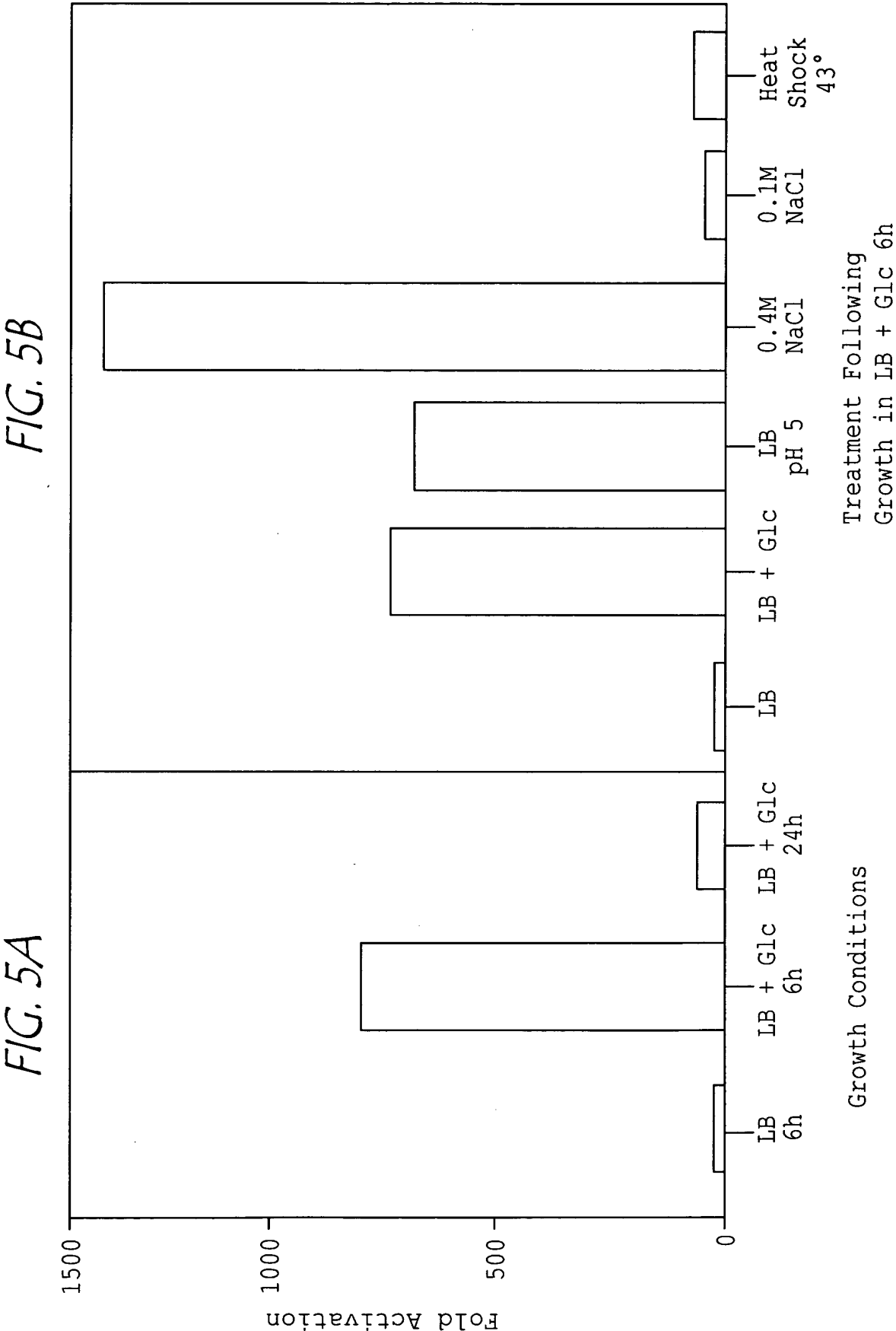
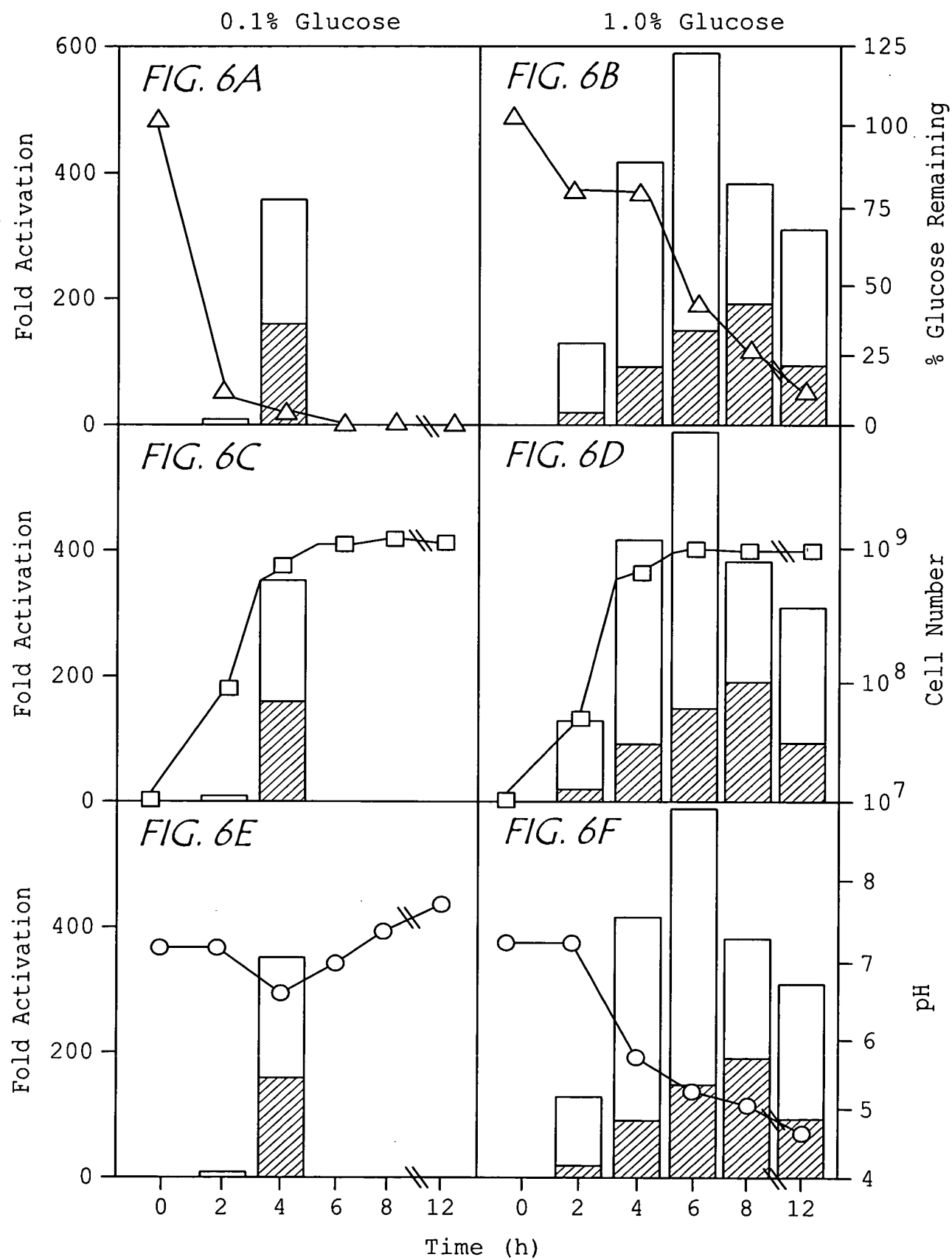


FIG. 4





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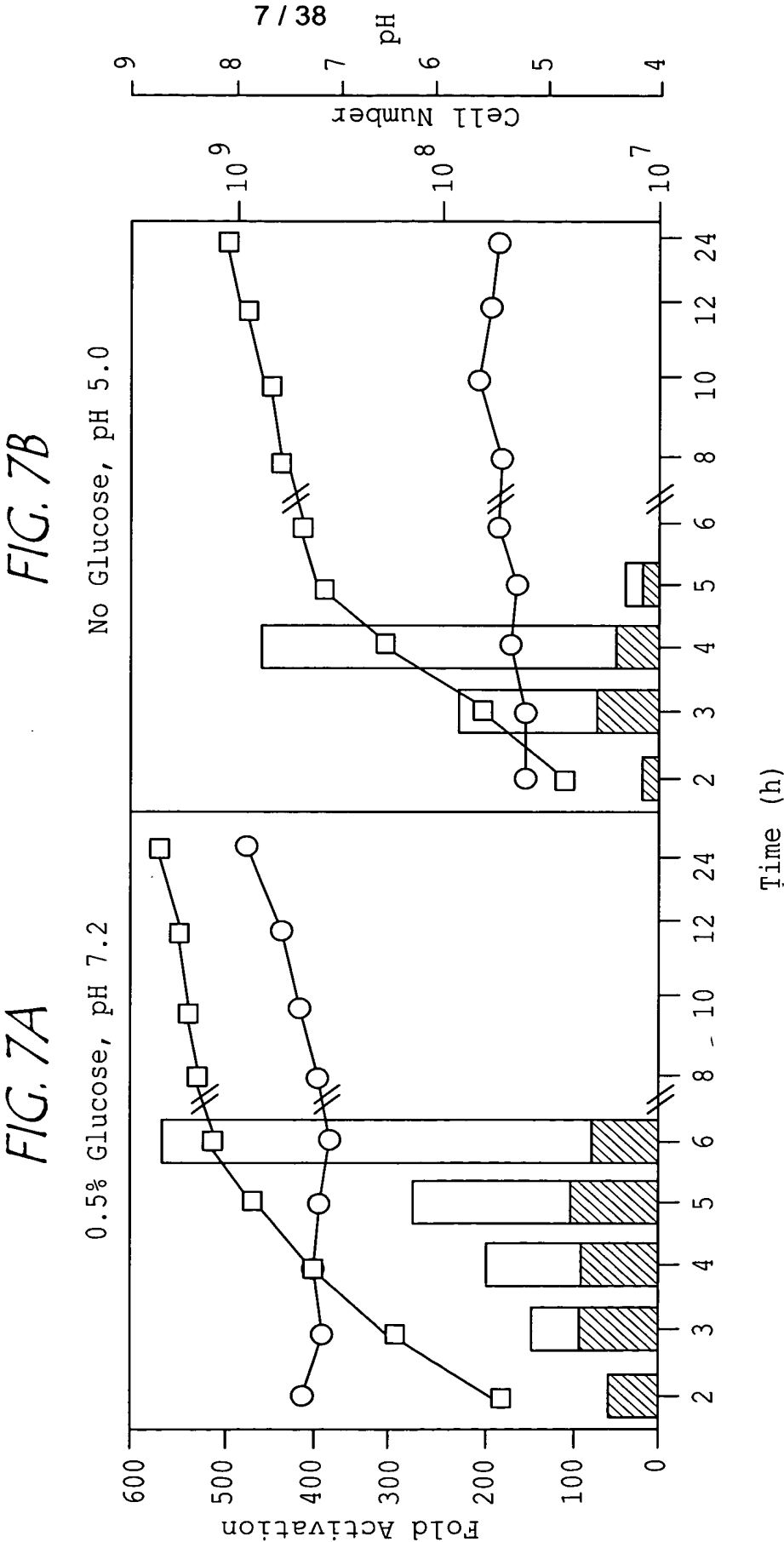


FIG. 8B

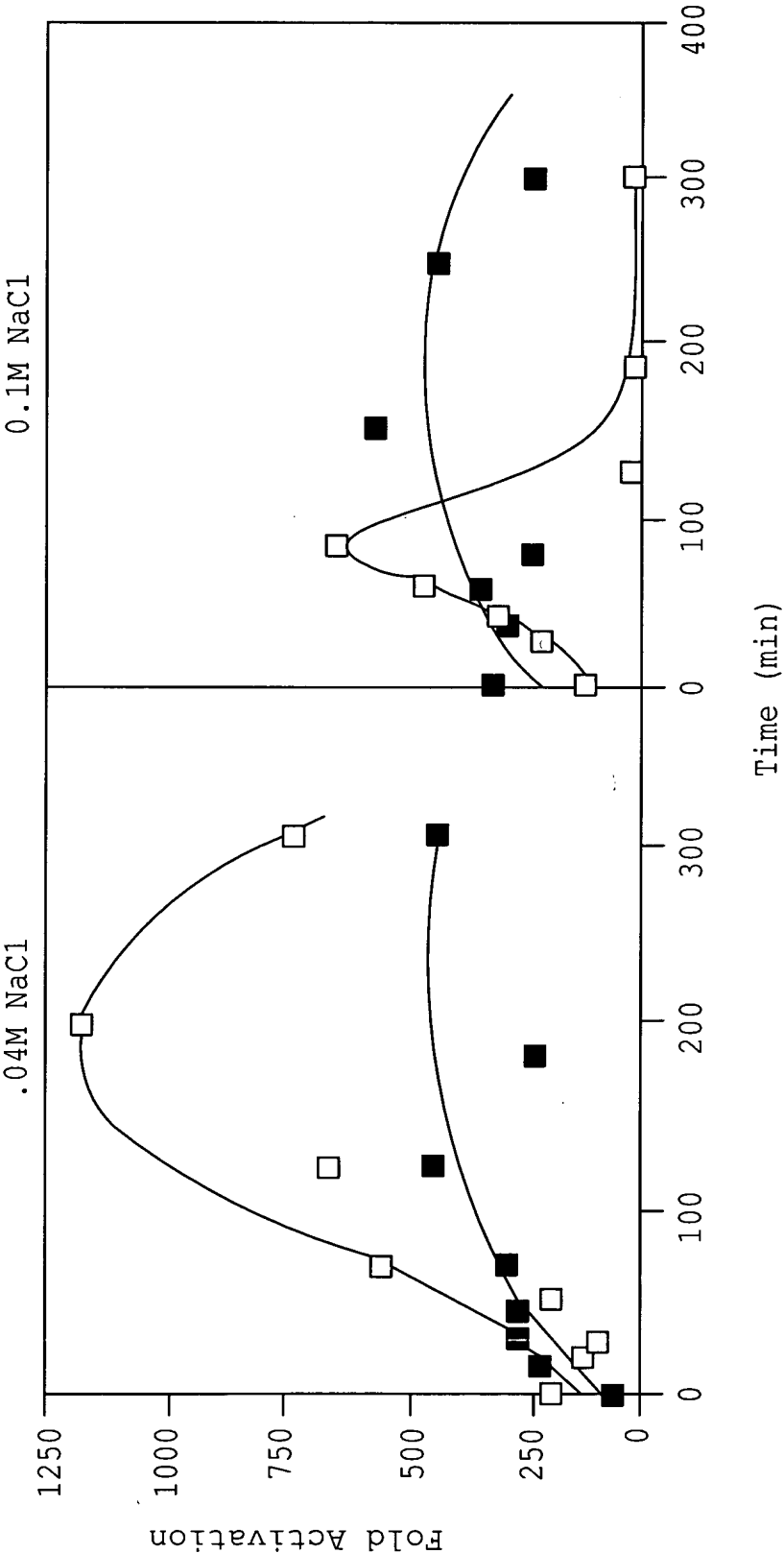


FIG. 8A

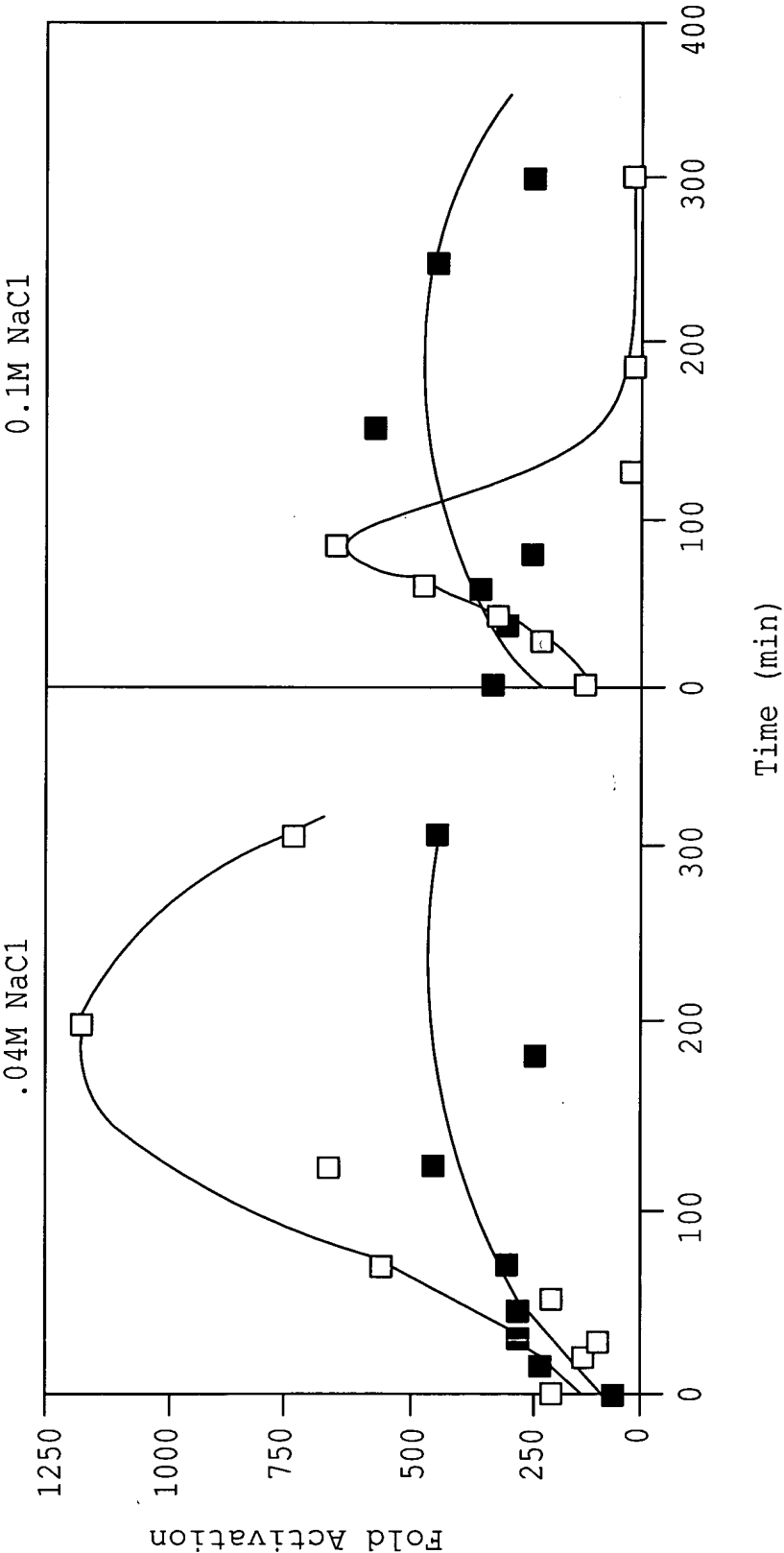


FIG. 9A

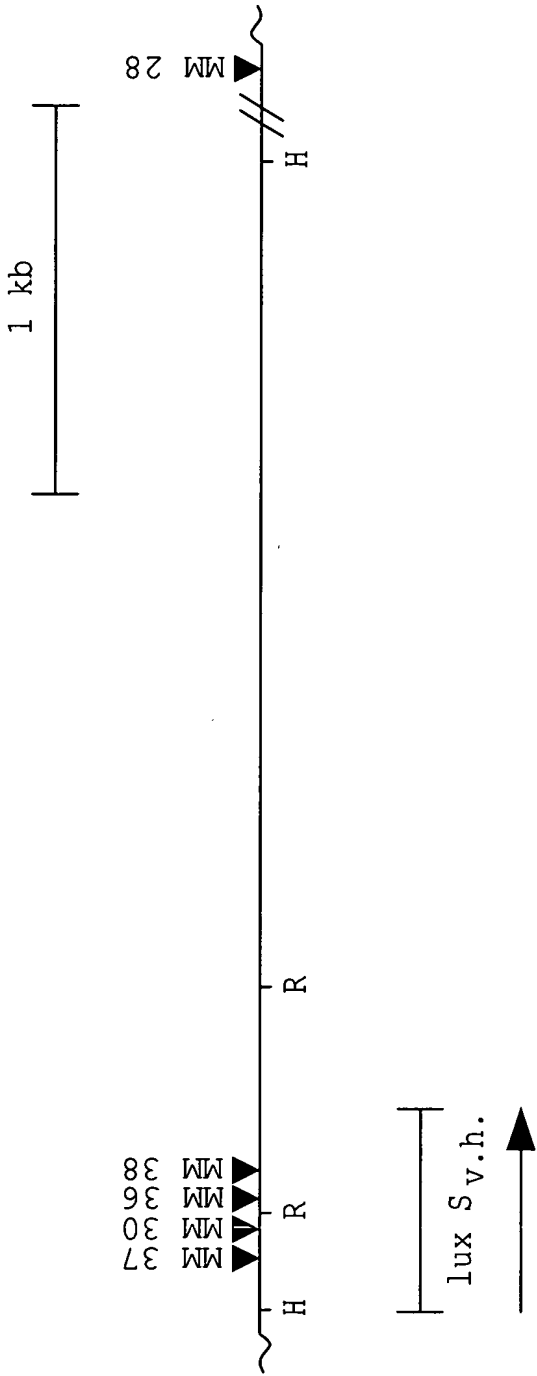


FIG. 9B

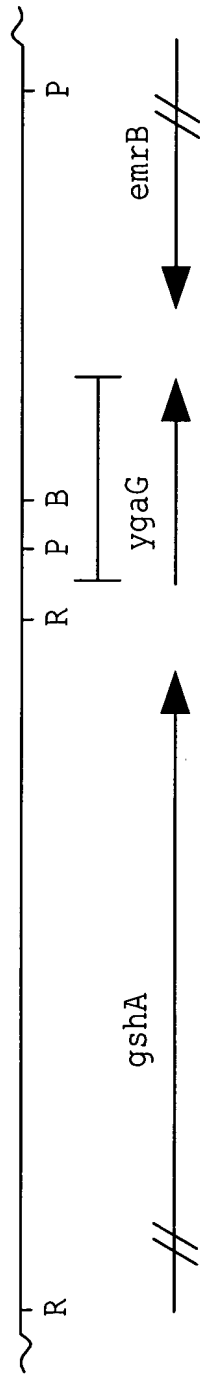
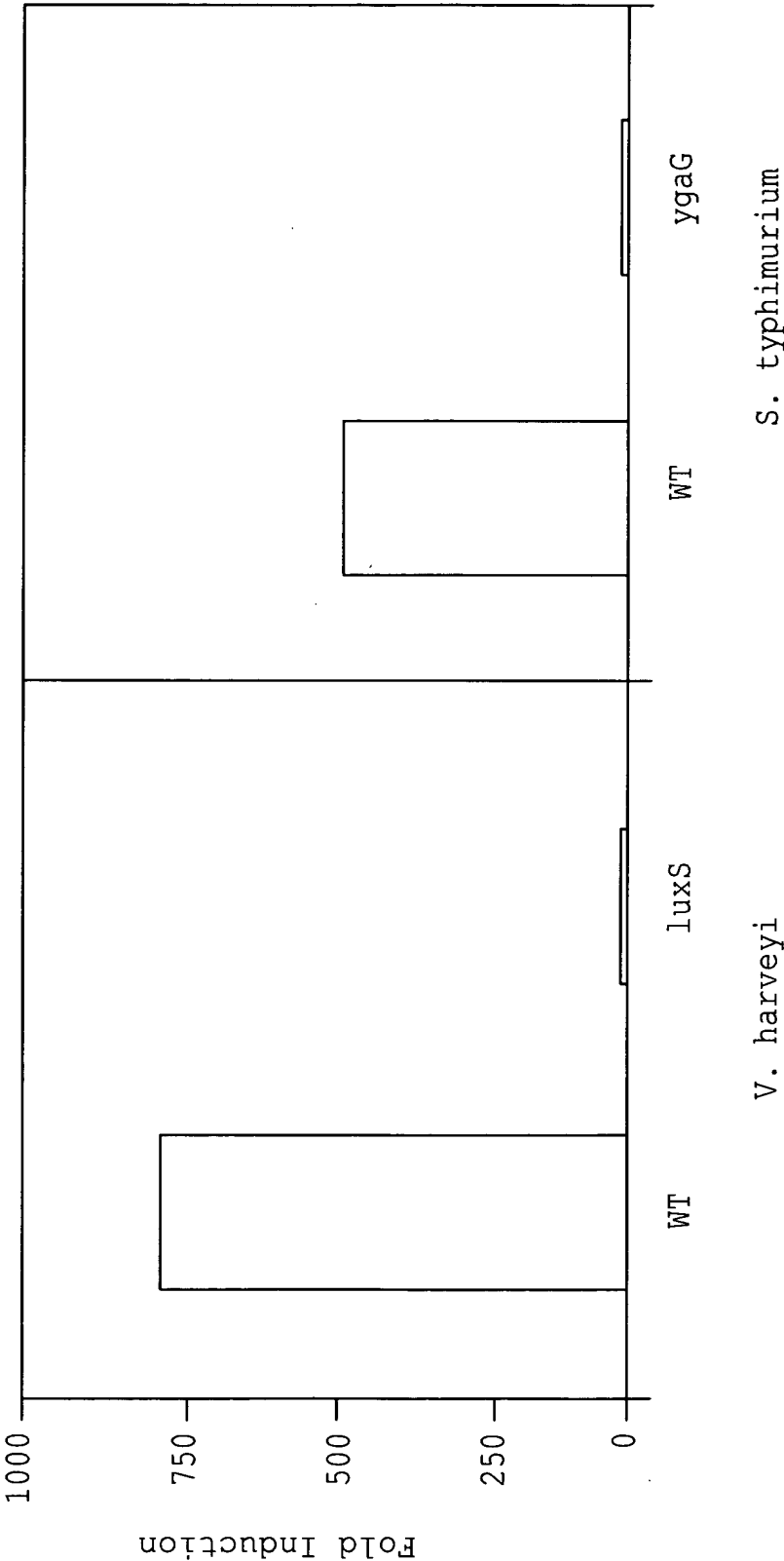


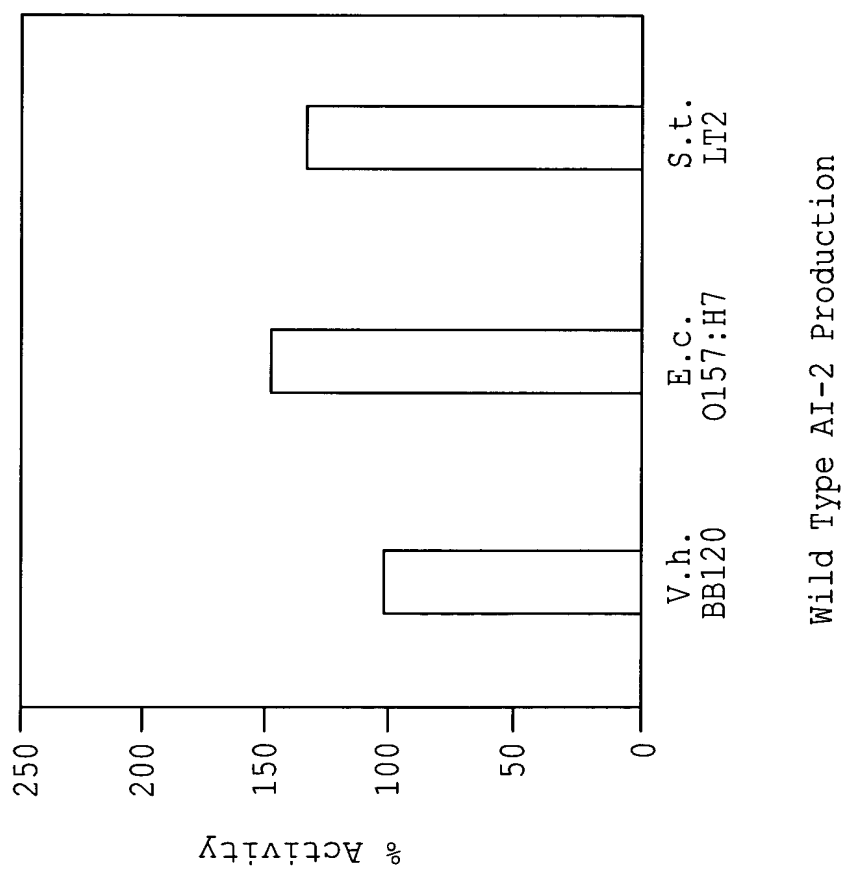
FIG. 10A

FIG. 10B



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FIG. 11A



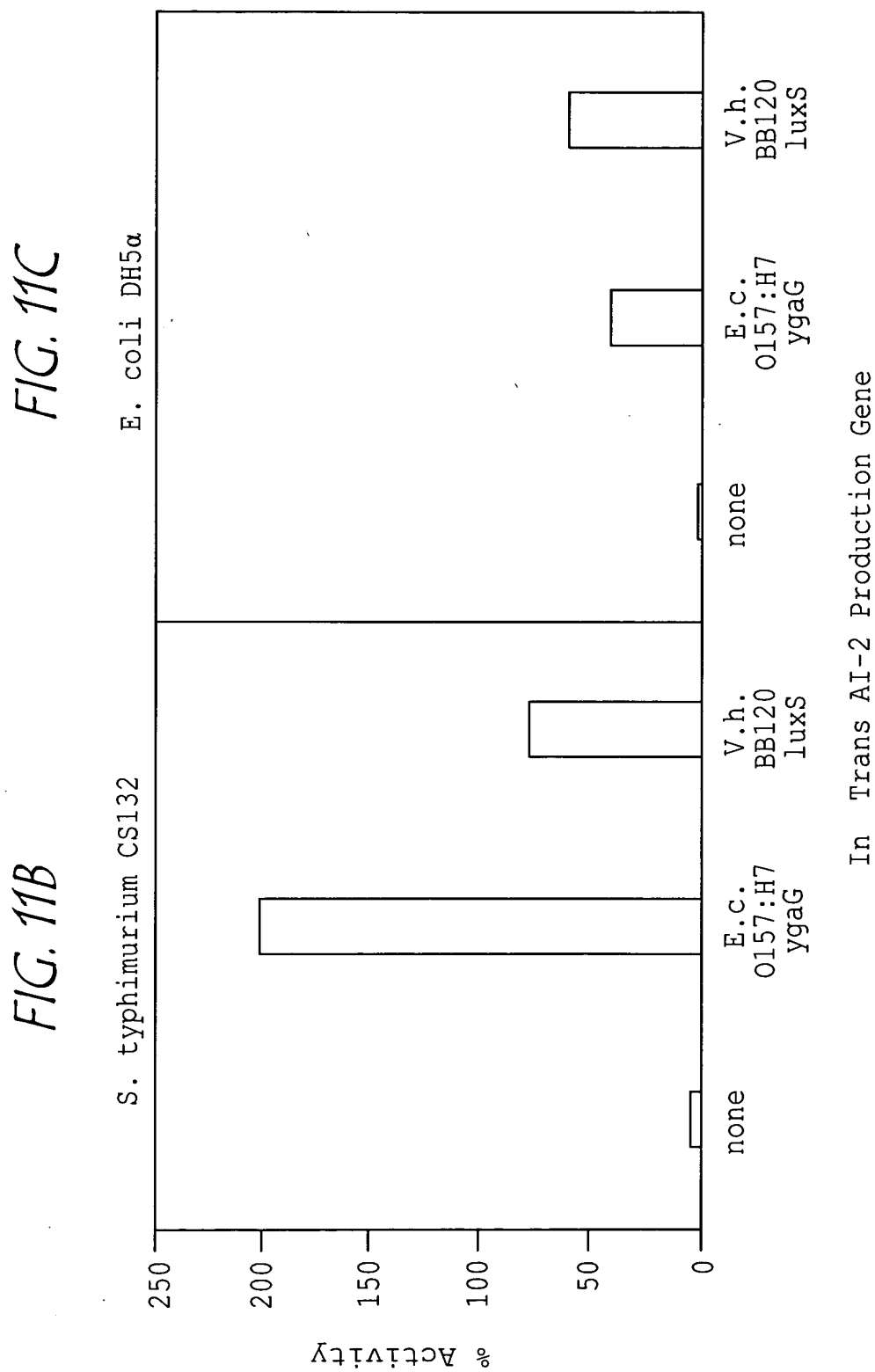


FIG. 12

V.h. BB120 1 MPLLDSFTVDHTRMEAPAVRVAKTMQTPRGDTITVFDLRF¹TAPNKDILSEKGIHTLEHLYAGFMRNHLNGDSVIIDISPMGCR²TG

E.c. MG1655 1 MPLLDSFTVDHTRMEAPAVRVAKTMQTPMGDAITVFDLRF¹CVPNLEVM²PERGIHTLEHLFAGFMRNHLNGNGVEI³IIDISPMGCR⁴TG

E.c. 0157:H7 1 MPLLDSFTVDHTRMEAPAVRVAKTMQTPMGDAITVFDLRF¹CVPNLEVM²PERGIHTLEHLFAGFMRNHLNGNGVEI³IIDISPMGCR⁴TG

S.t. LT2 1 NSD¹HTRMQAPAVRVAKTMQTPMGDAITVFDLRF¹CVPNLEVM²PERGIHTLEHLFAGFMRDHLNGNGVEI³IIDISPMGCR⁴TG

E.c. DH5 α 1 MPLLDSFTVDHTRMEAPAVRVAKTMQTPMGDAITVFDLRF¹CVPNLEVM²PERGIHTLEHLFAGFMRNHLNGNGVEI³IIDISPMGCR⁴TG

V.h. BB120 87 FYMSLIGTPSKQOVADAWIAAMEDVLKVENQNKIPELNEYQCGTAAMHSLDEAKQIAKNILEVGVAVNKNDELALPESMLRELRI²D

E.c. MG1655 87 FYMSLIGTPDKQ¹RVADAWKAAMEDVLKVQDQ²NQIPELNVYQCGTYQ³MHSLQEAQDIARSIL⁴ERDVRINSNEELALPKEKLQELHI

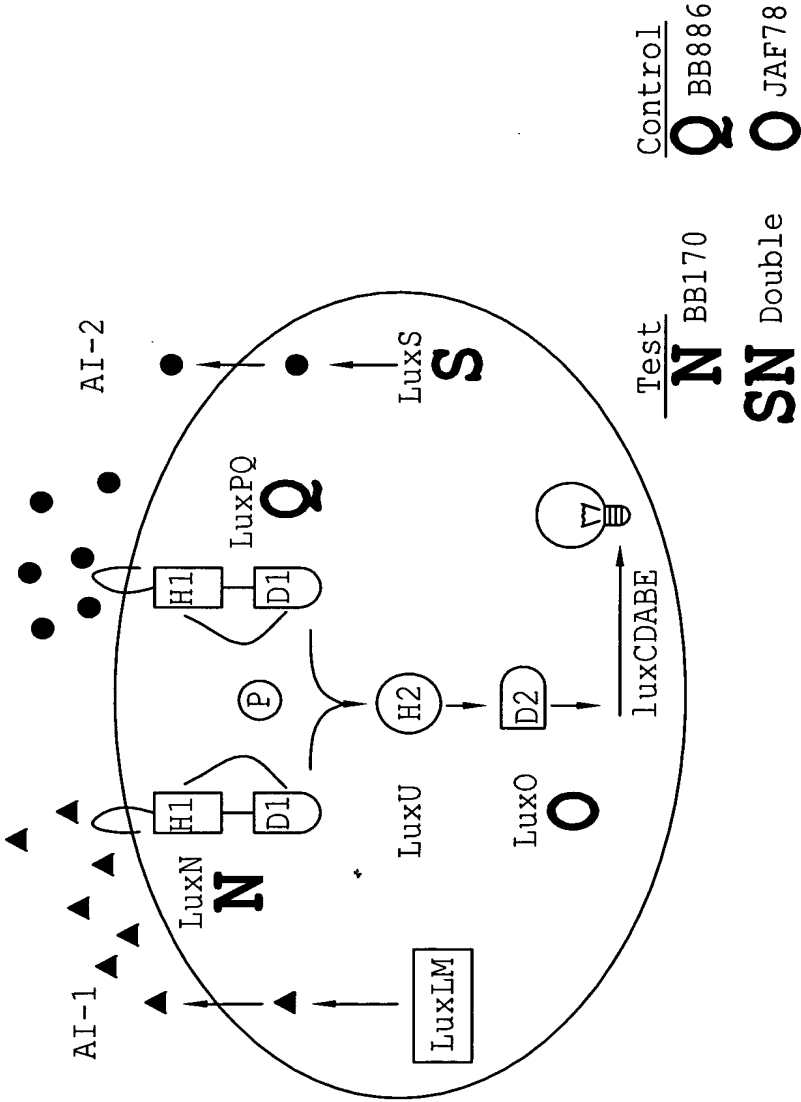
E.c. 0157:H7 87 FYMSLIGTPDKQ¹RVADVWKAAMEDVLKVQDQ²NQIPELNVYQCGTYQ³MHSLQEAQDIARSIL⁴ERDVRINSNEELALPKEKLQELHI

S.t. LT2 87 FYMSLIGTPDKQ¹RVADAWKAAMADVLKVQDQ²NQIPELNVYQCGTYQ³MHSLSEAQDIARHIL⁴ERDVRVNSKELALPKEKLQELHI

E.c. DH5 α 87 FYMSILV¹RQMSSVLLMPKGRQ²WKTC

FIG. 13

Hybrid quorum sensing circuit of *Vibrio harveyi*



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FIG. 14

Autoinducer Production and Response
Phenotypes of *V. harveyi* Lux mutants

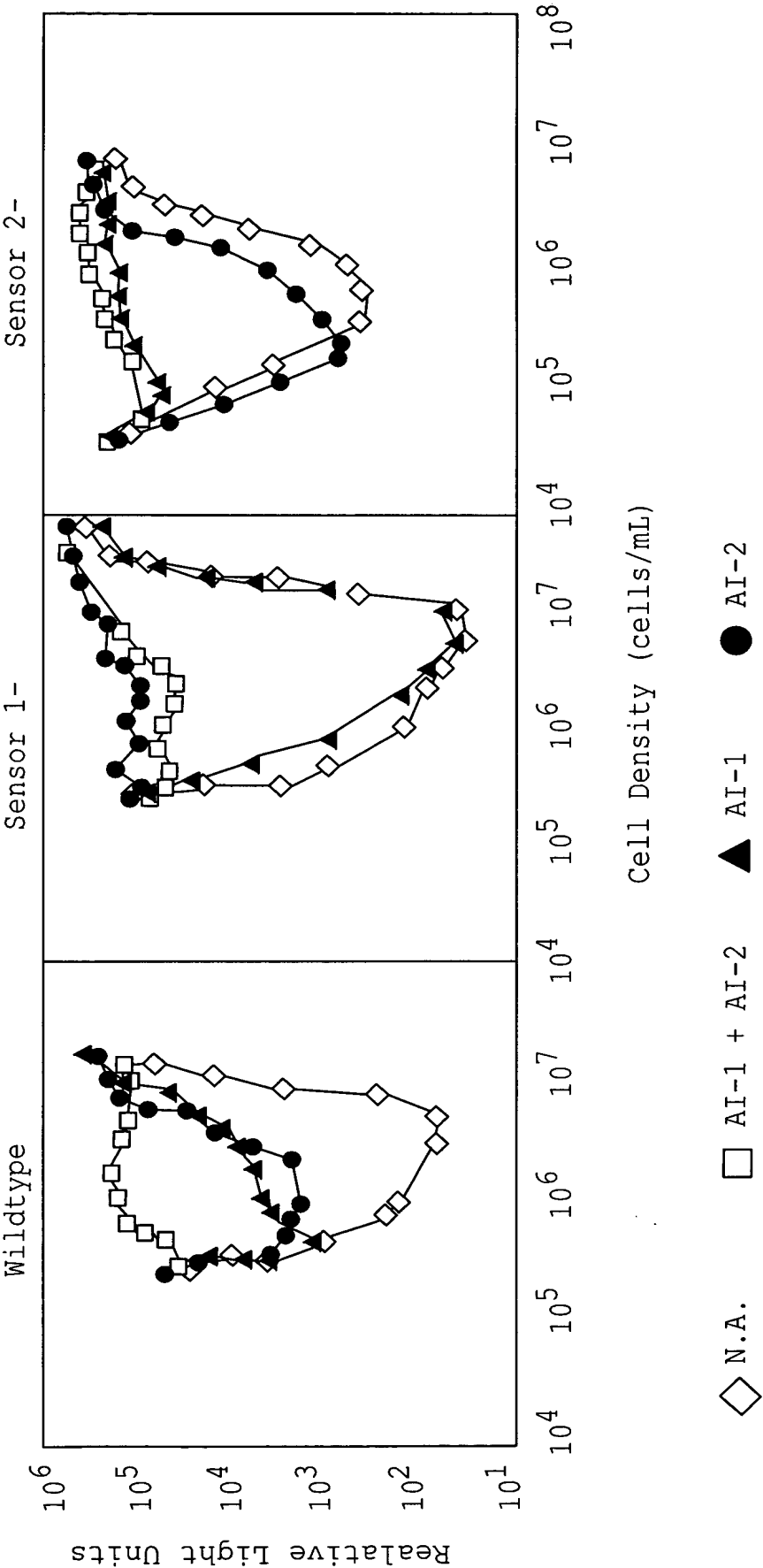


FIG. 15

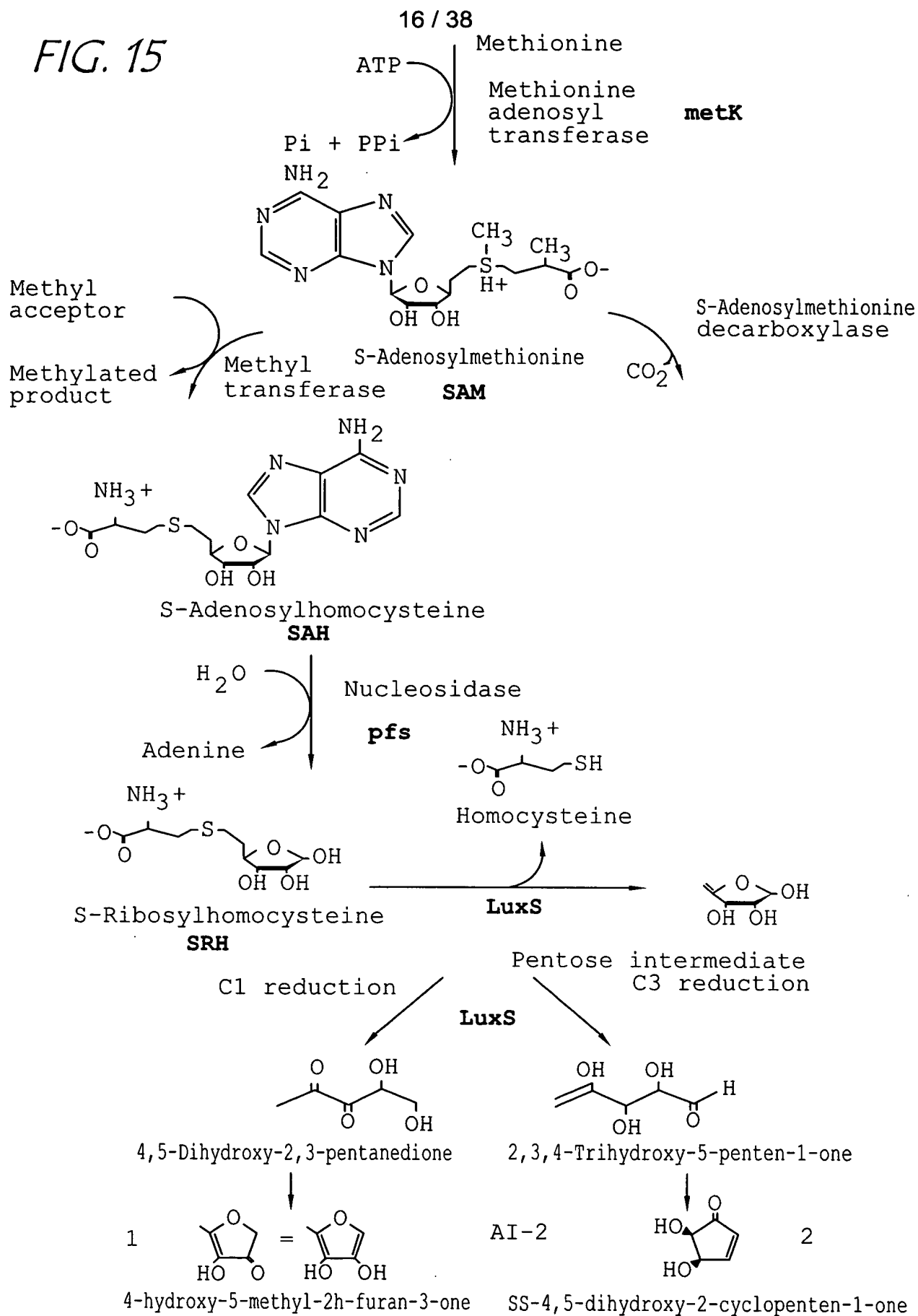


FIG. 16A

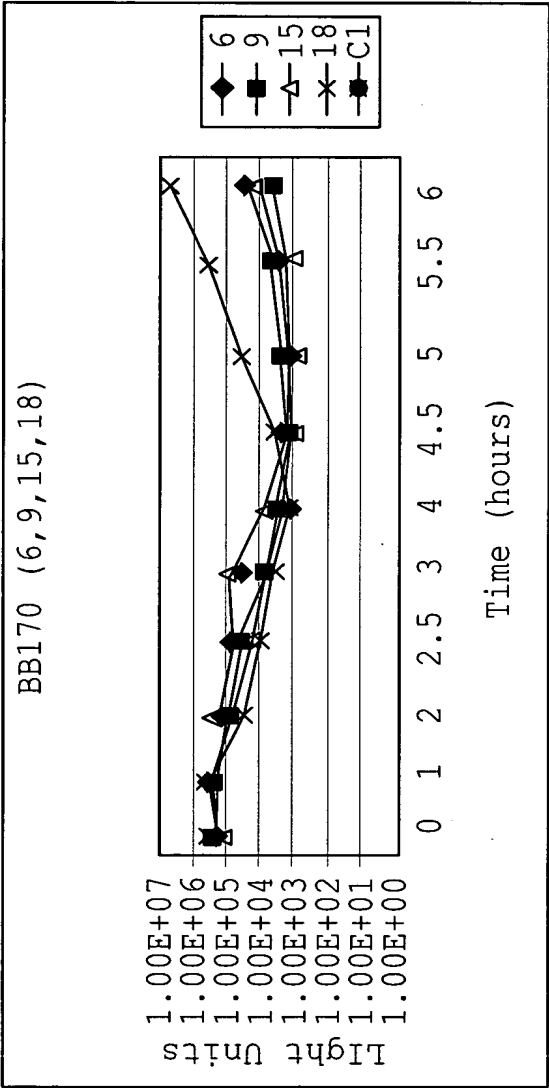


FIG. 16B

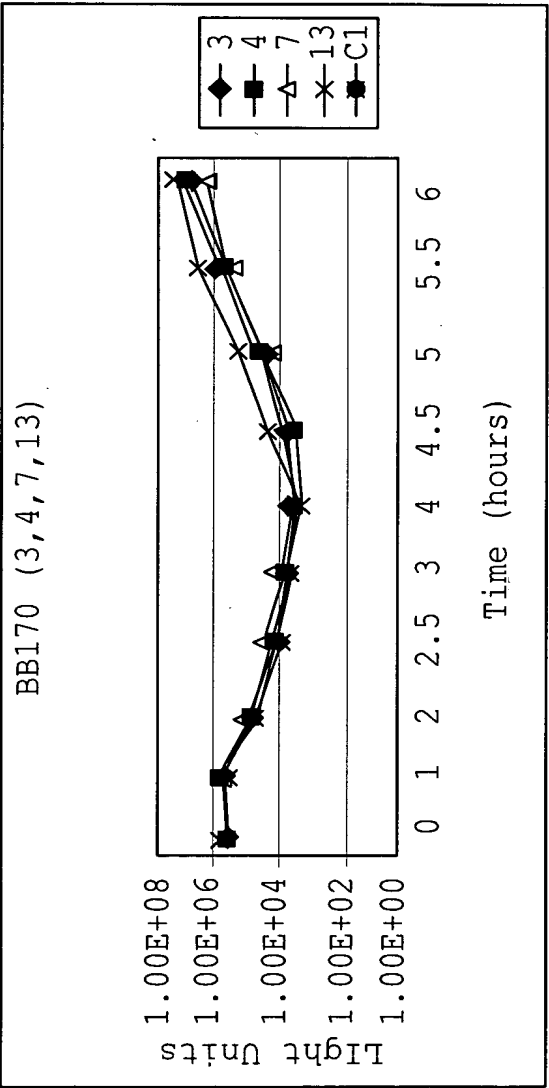


FIG. 16C

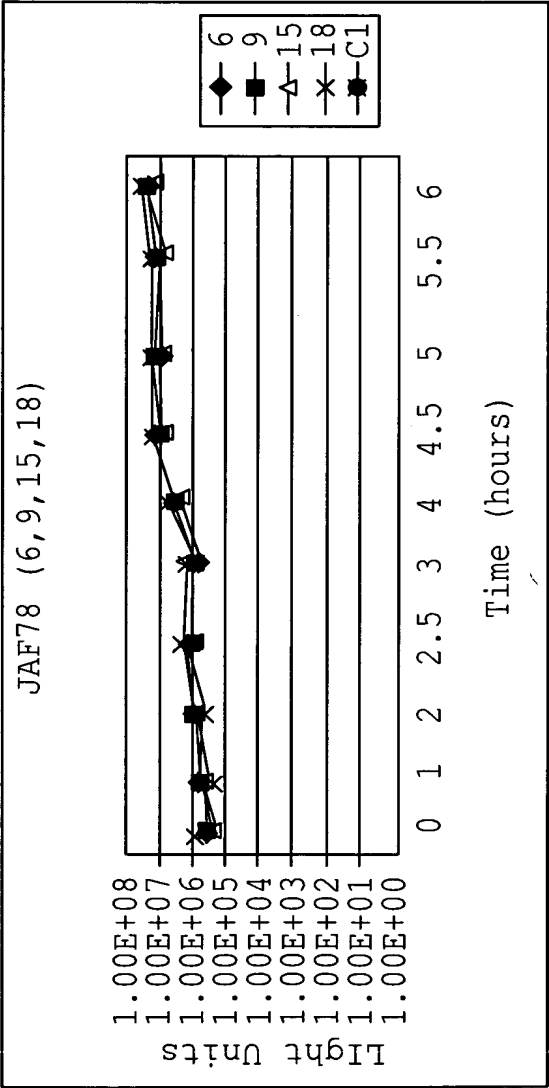


FIG. 16D

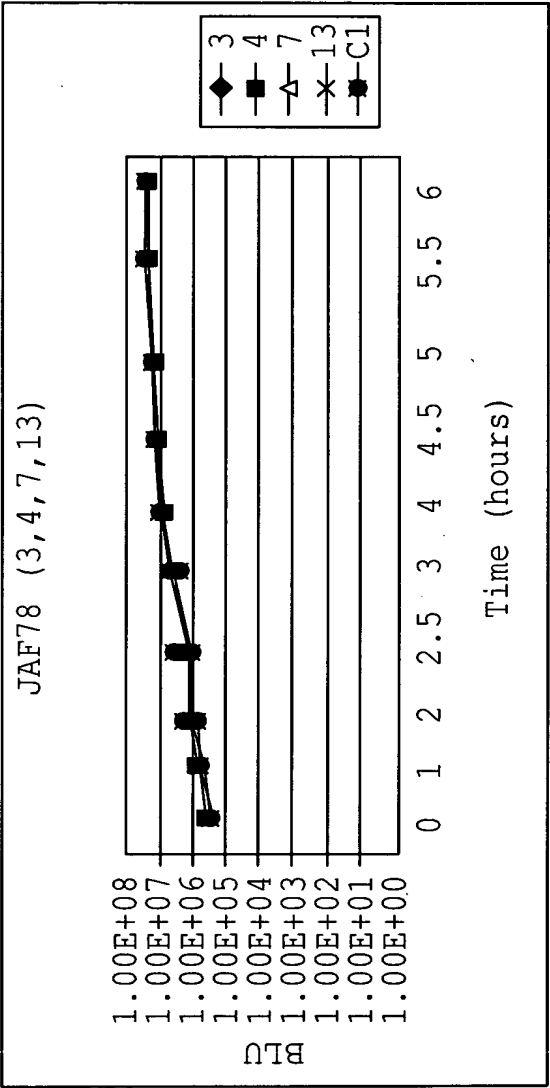
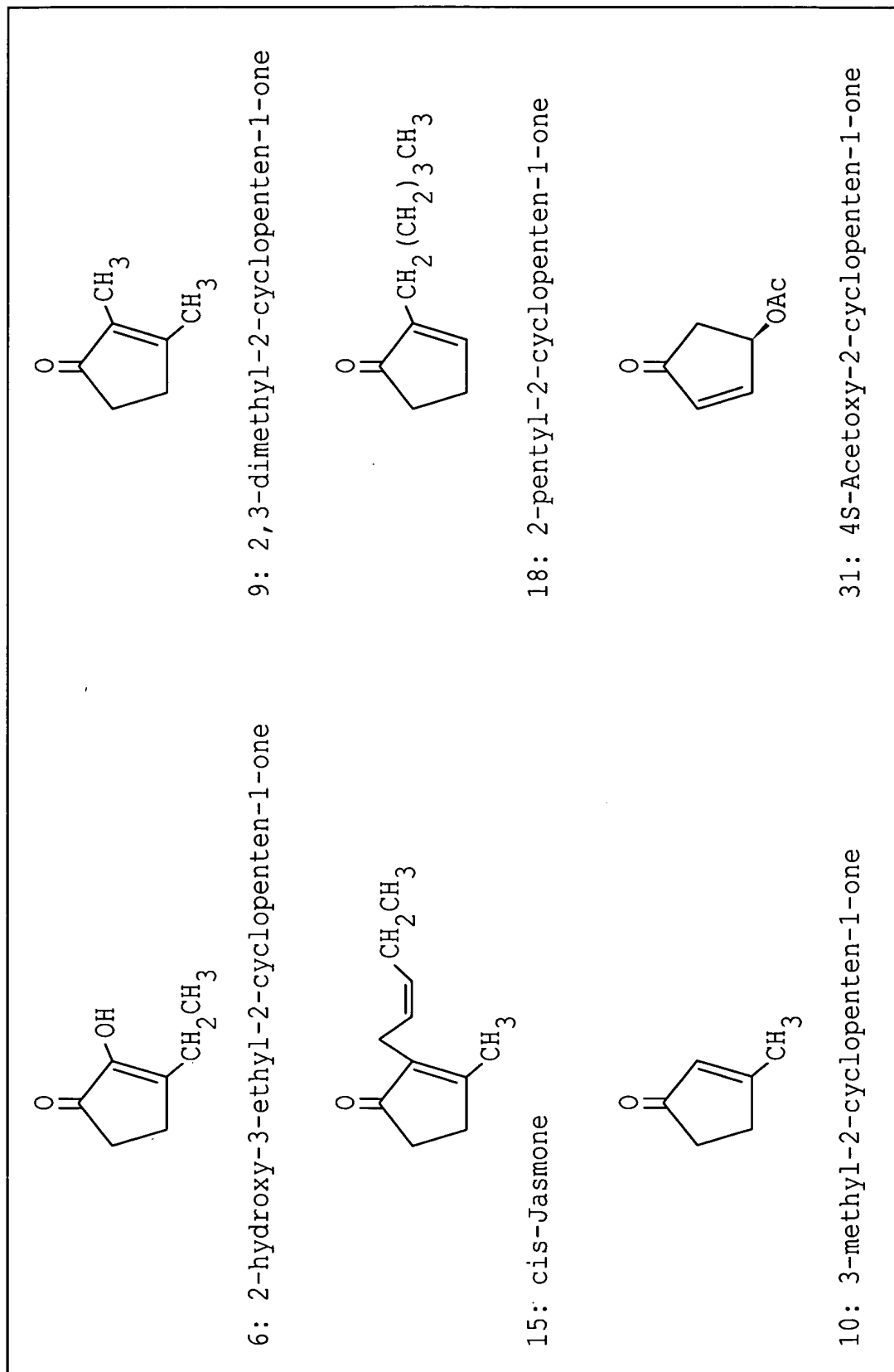
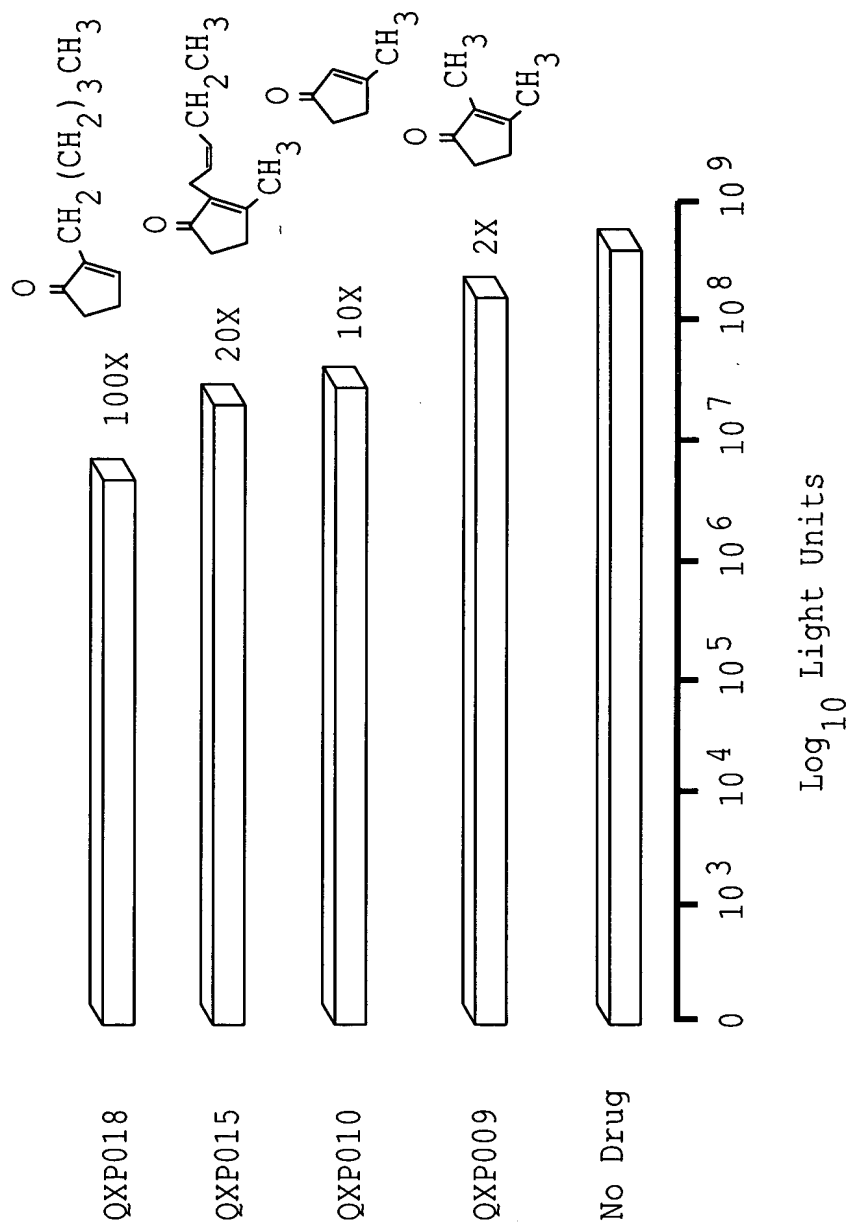


FIG. 17



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FIG. 18

Attenuation of Light by Analogues
V. harveyi Assay

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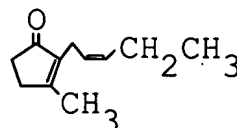
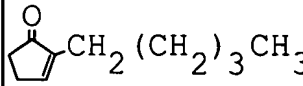
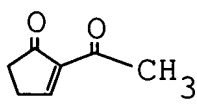
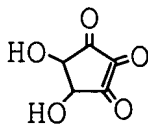
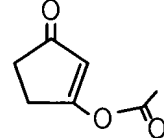
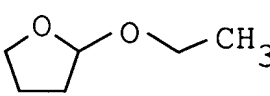
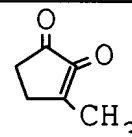
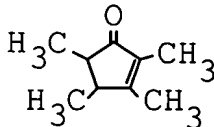
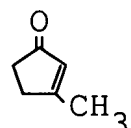
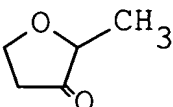
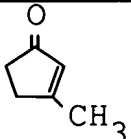
Compound #	Compound Name	Conc. (Fold inhibition)	Active?	Structure
15	Cis -jasmane	6ug/ml (52x)	y	
18	2-pentyl-2-cyclopenten-1-one	6ug/ml (20x)	y	
20	2-acetylcyclopentenone	25ug/ml (6x)	y	
12	Croconic Acid	25ug/ml (29x)	y	
31	B006	0.4ug/ml (9x)	y	
28	2-ethoxytetrahydrofuran	100ug/ml (87x)	y	
2	3-methyl-1,2-cyclopentanedione (2)	>=100ug/ml	y?	
8	2,3,4,5 tetramethyl-2-cyclopentenone (8)	>=100ug/ml	y?	
10	3-methyl-2-cyclopenten-1-one (10)	>=100ug/ml	y?	
19	2-methyltetrahydrofuran-3-one (19)	>100ug/ml	n	
5	3-methoxy-2-cyclopenten-1-one (5)	>100ug/ml	n	

FIG. 19A

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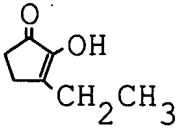
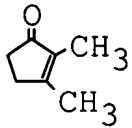
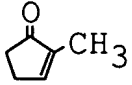
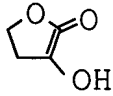
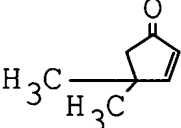
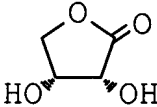
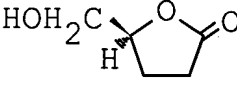
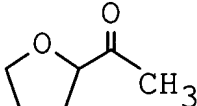
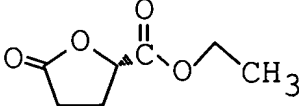
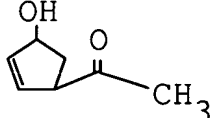
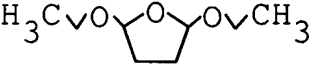
6	3-ethyl-2-hydroxy-cyclopenten-1-one (6)	>100ug/ml	n	
9	2,3-dimethyl-cyclopenten-1-one (9)	>100ug/ml	n	
11	2-methyl-cyclopenten-1-one (11)	>100ug/ml	n	
17	alpha-hydroxy-gamma-butyrolactone (17)	>100ug/ml	n	
1	4,4-dimethyl-cyclopenten-1-one (1)	>100ug/ml	n	
13	D-erythronic gamma-lactone (13)	>100ug/ml	n	
25	(s) (+) dihydro-5-hydroxymethyl 2 (3H) furanone (25)	>100ug/ml	n	
27	methyltetrahydrofurfuryl ether (27)	>100ug/ml	n	
26	R- (-) gamma-ethoxycarbonyl-gamma-butyrolactone	>100ug/ml	n	
32C	3-acetyl-4-cyclopenten-1-hydroxy	>100ug/ml	n	
29	2,5-diethoxytetrahydrofuran	>100ug/ml	n	

FIG. 19B

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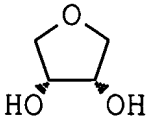
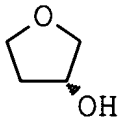
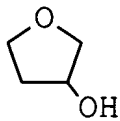
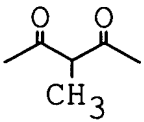
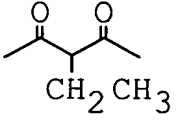
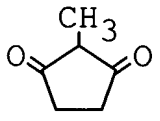
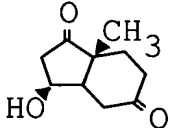
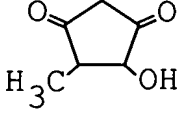
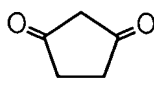
3	1,4 anhydroerythritol (3)	>100ug/ml	n	
4	3- hydroxytetrahydrofuran (4)	>100ug/ml	n	
7	(s) - (+) - 3 hydroxytetrahydrofuran (7)	>100ug/ml	n	
14	3-methyl 2,4-pentanedione (14)	>100ug/ml	n	
16	3-ethyl 2,4-pentanedione (16)	>100ug/ml	n	
21	2 methyl-1,3 cyclopentanedione (21)	>100ug/ml	n	
22	(3AS) (7AS) --hexahydro- 3Ahydroxy-7 Amethyl 1,5 indiandione (22)	>100ug/ml	n	
23	4-hydroxy-5-methyl-4- cyclopentene 1,3 dione monohydrate (23)	>100ug/ml	n	
24	1,3 cyclopentanedione (24)	>100ug/ml	n	

FIG. 19C

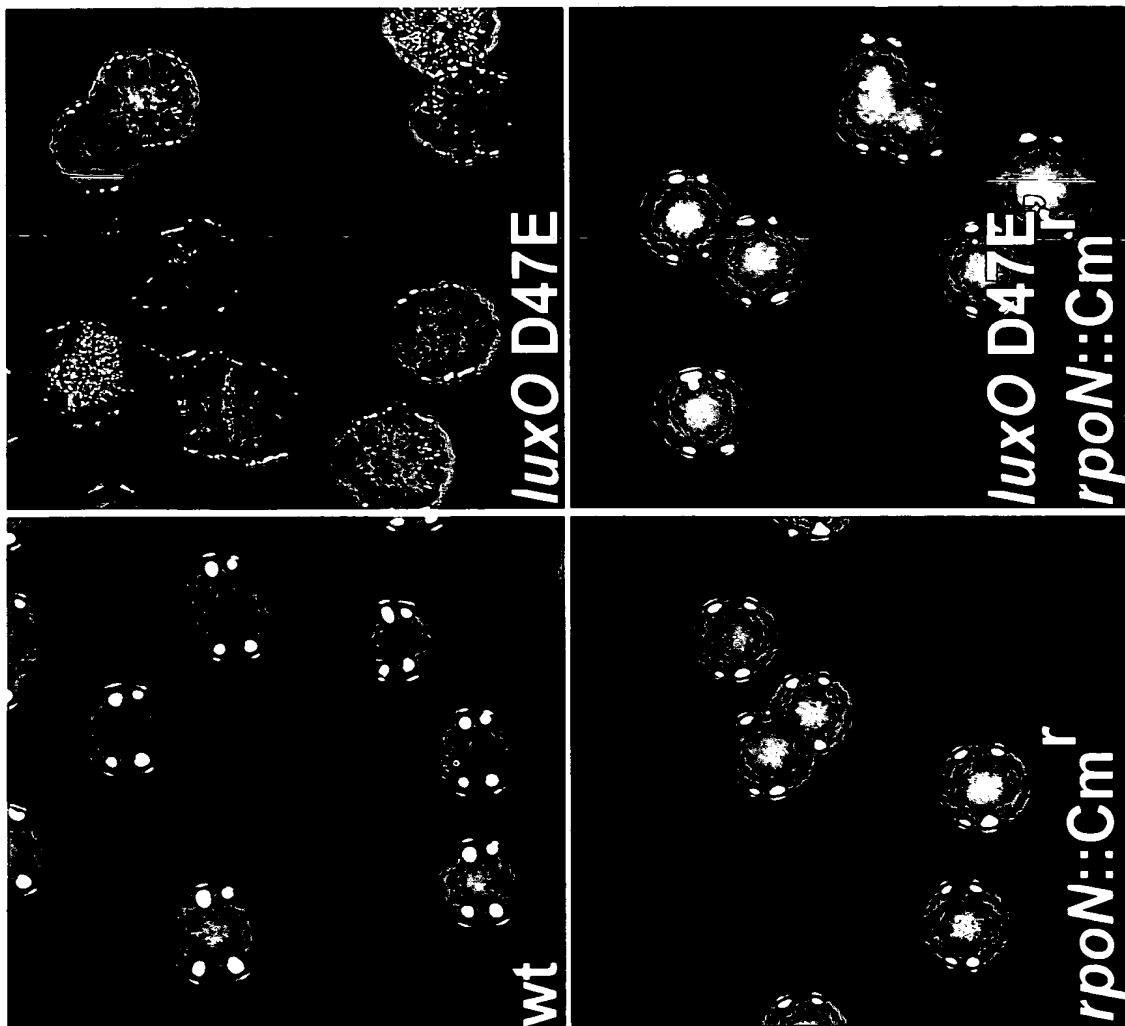


FIG. 20

Effect of relative luminescence by compound #31 in V. harveyi Bioassay

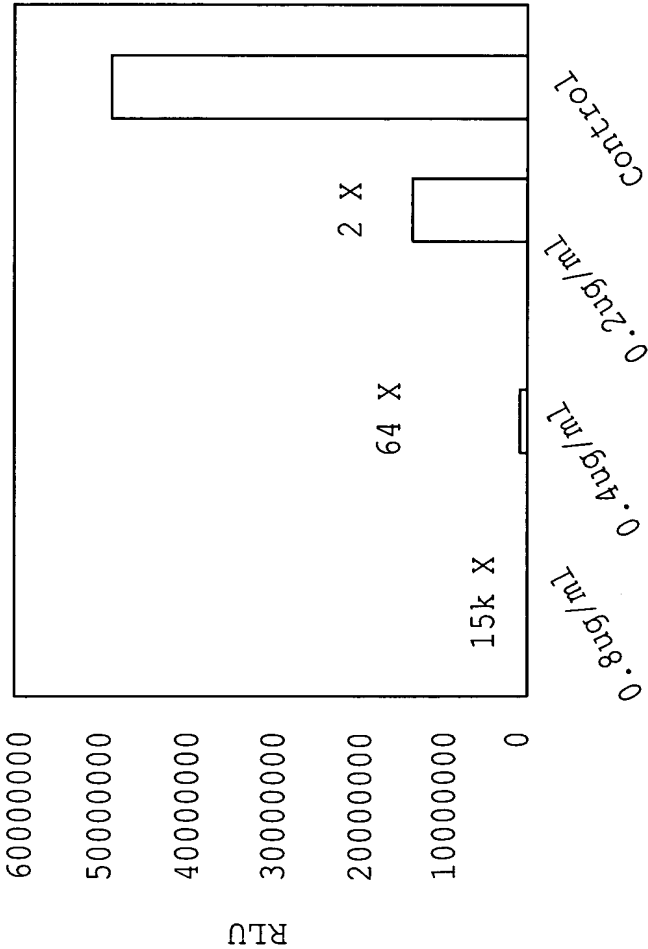


FIG. 21

Staph. Beta-Lysin

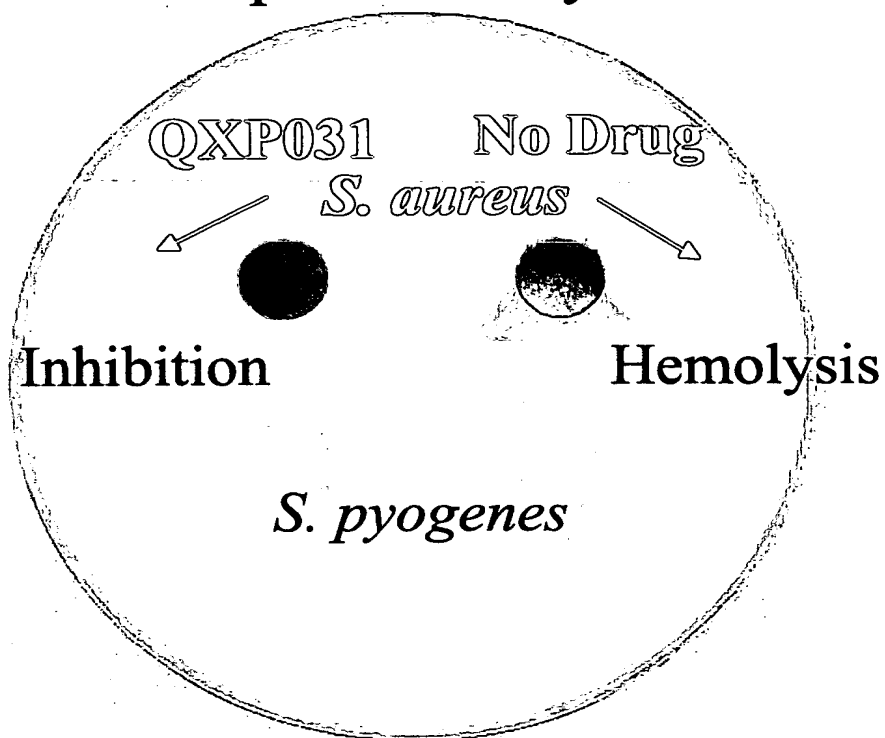


FIG. 22

Group A Strep. Protease

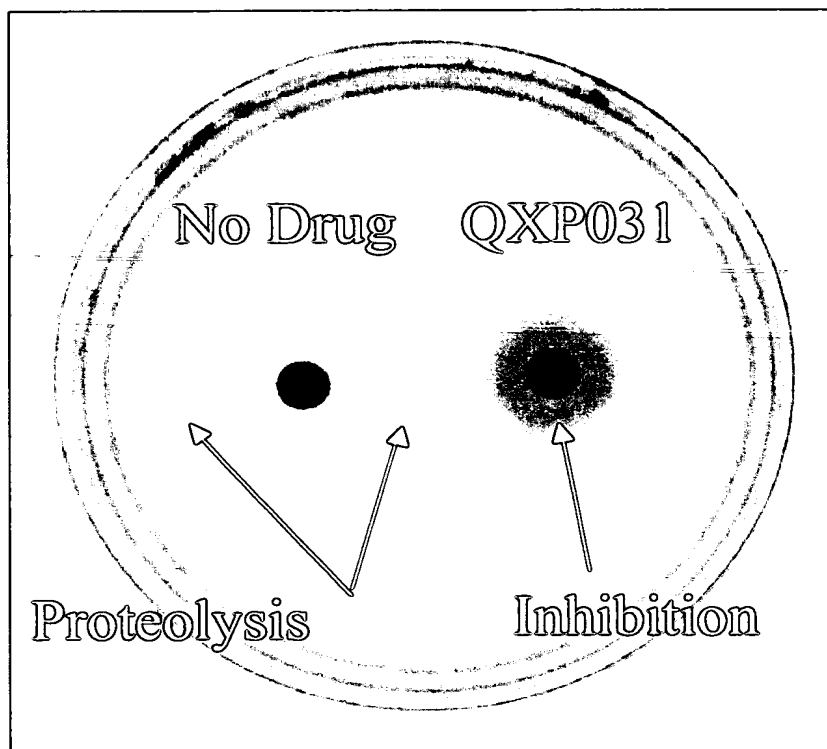


FIG. 23

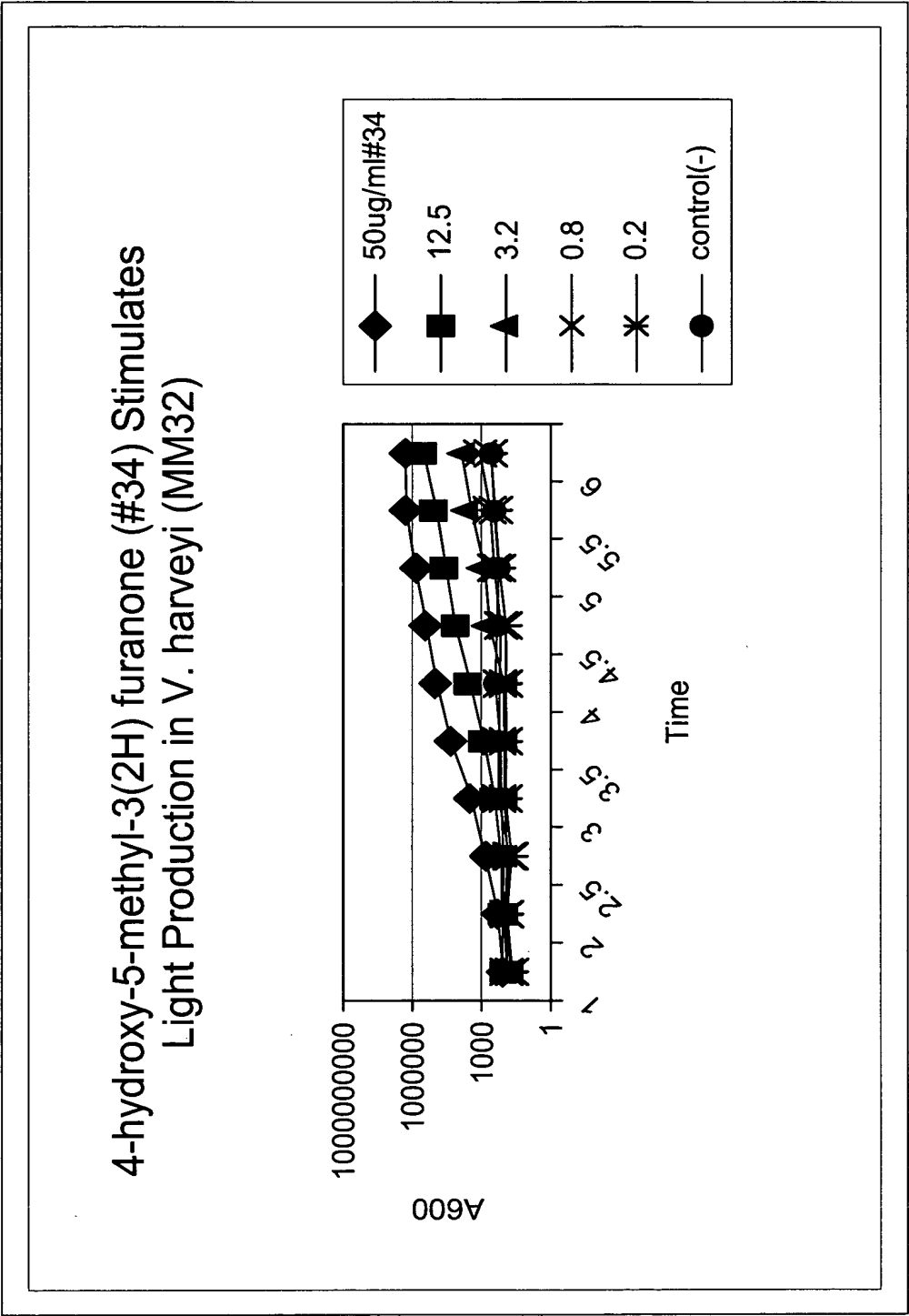


FIG. 24

FIG. 25A

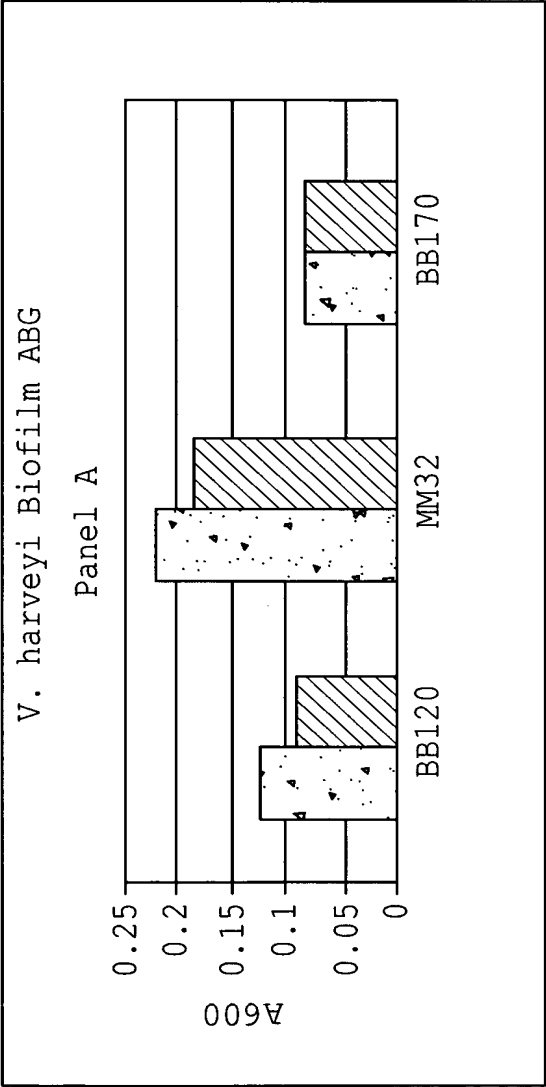


FIG. 25B

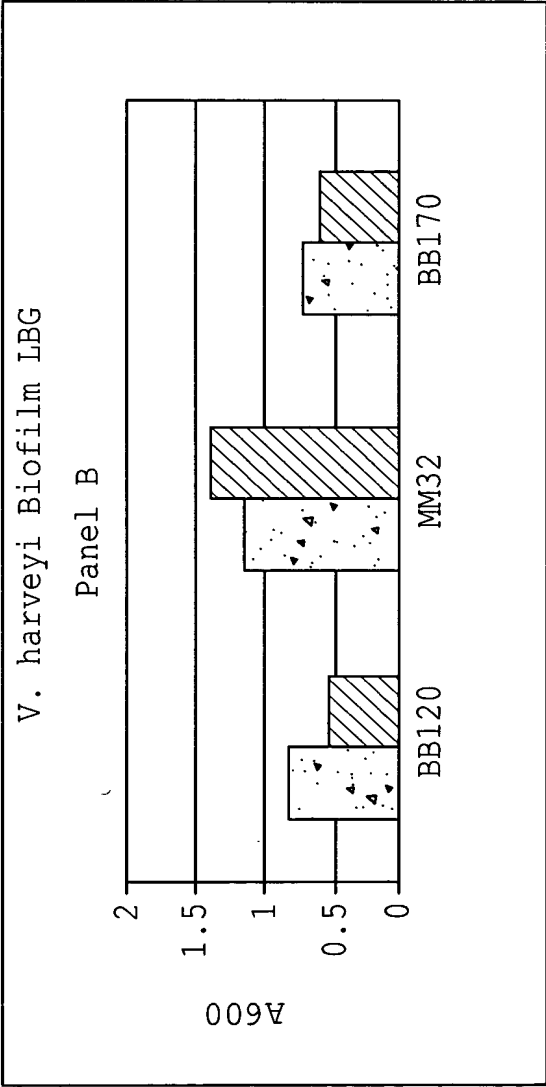


FIG. 26

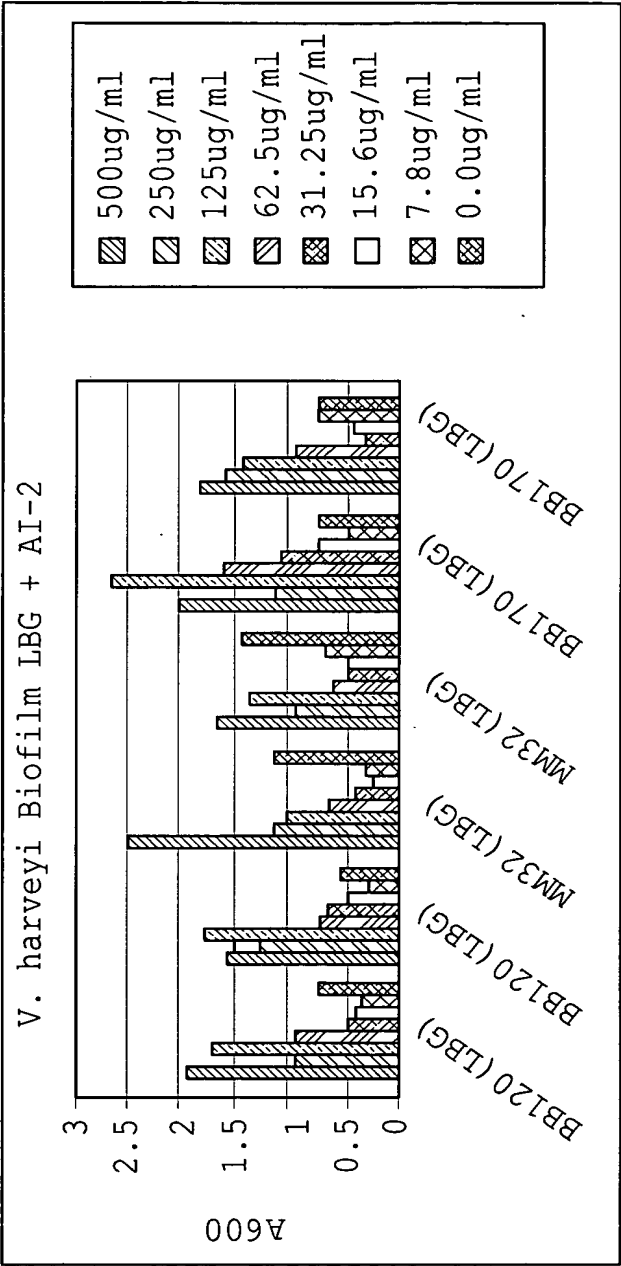


FIG. 27

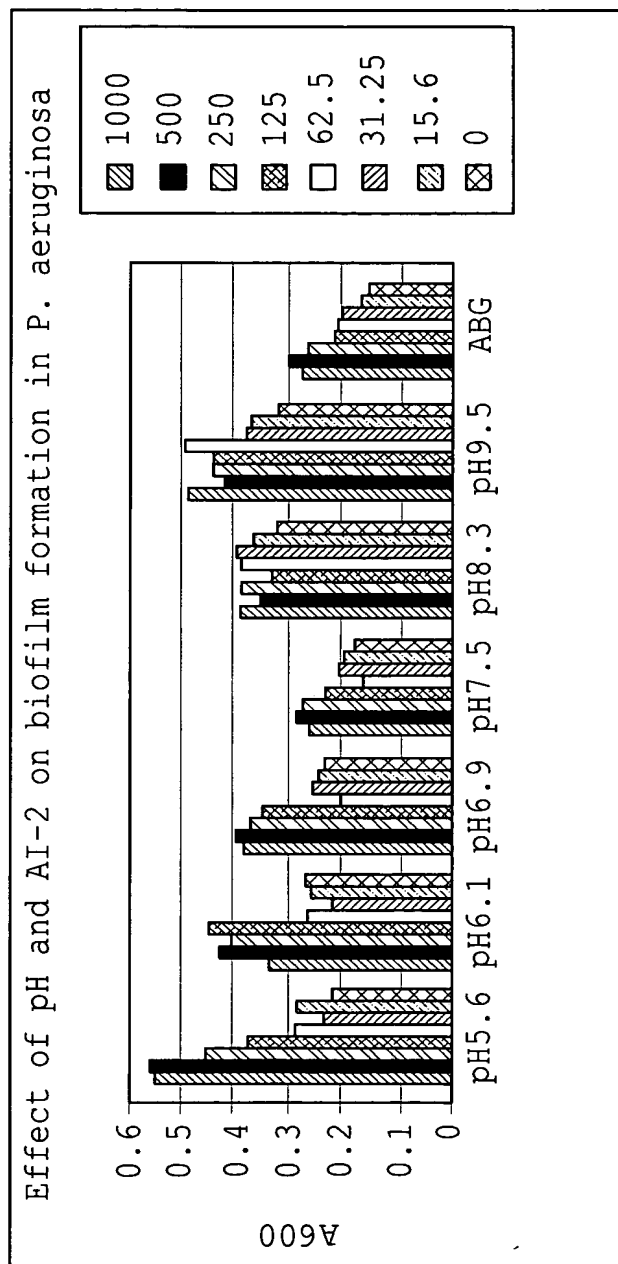


FIG. 28

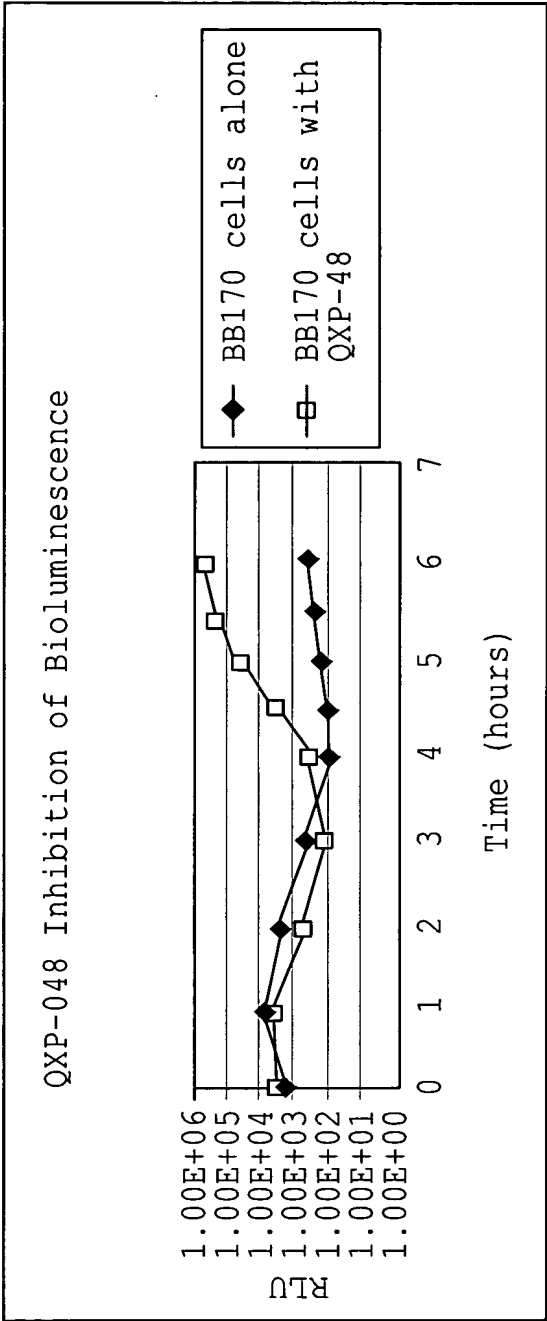


FIG. 29

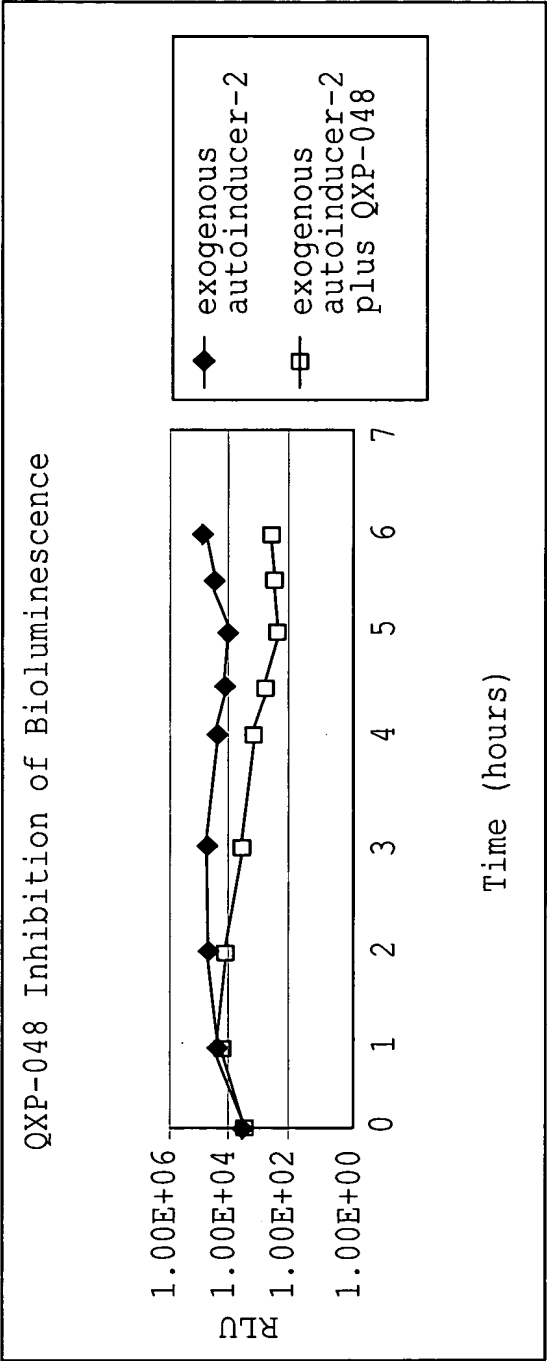
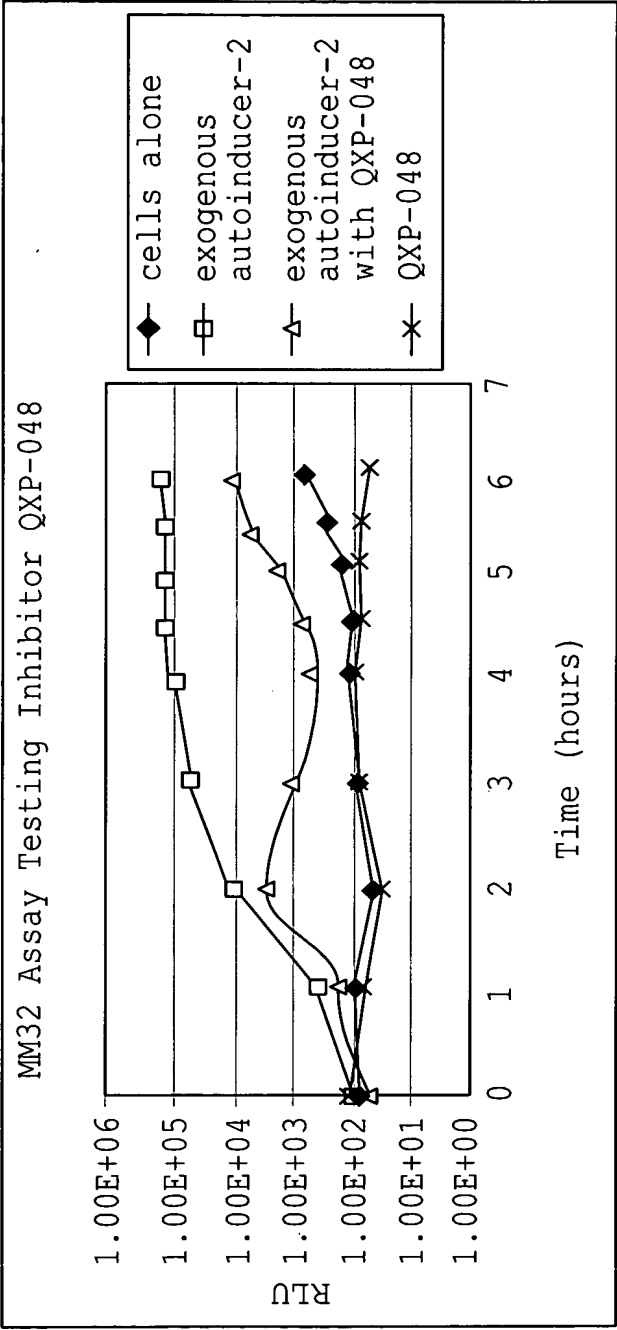


FIG. 30



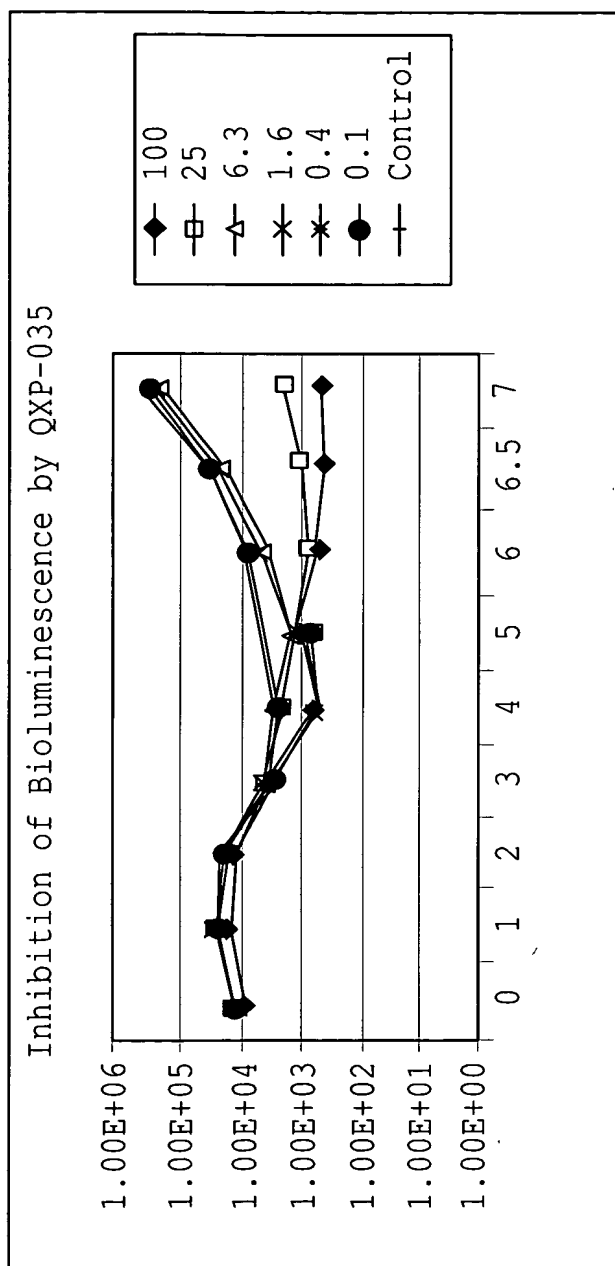
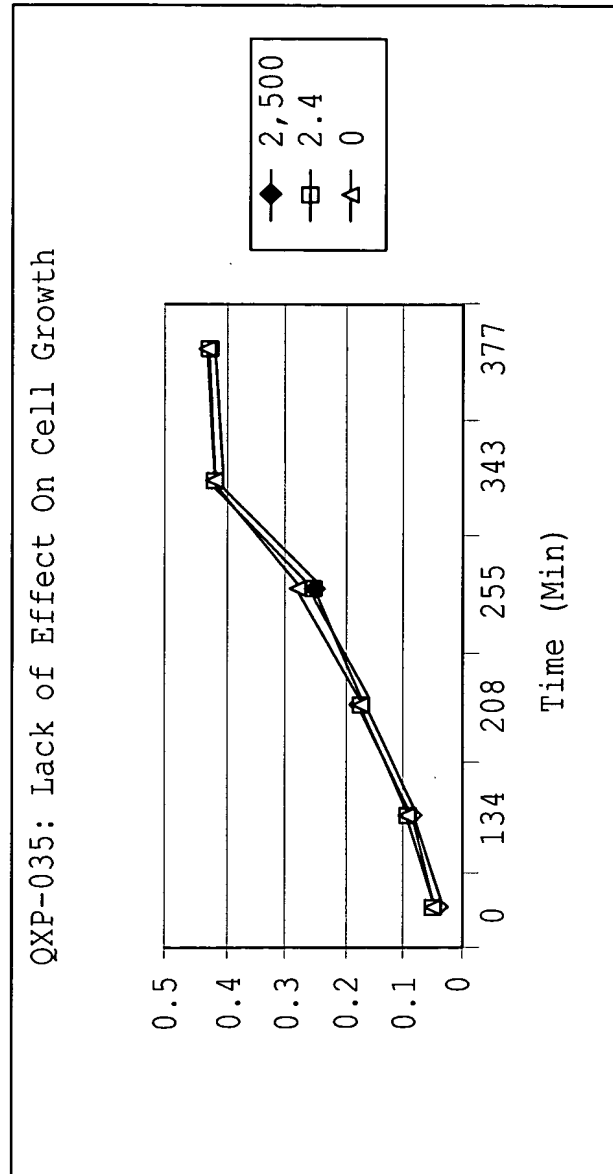


FIG. 32



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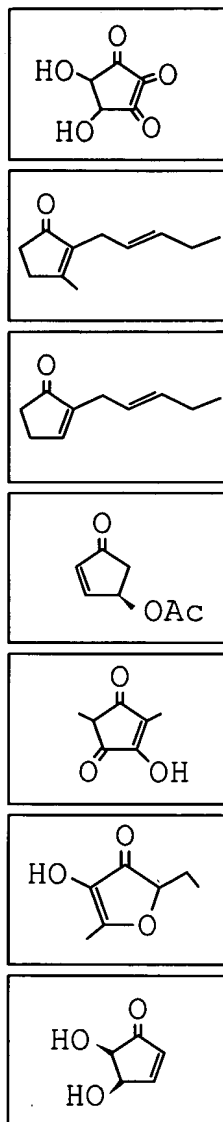


FIG. 33A

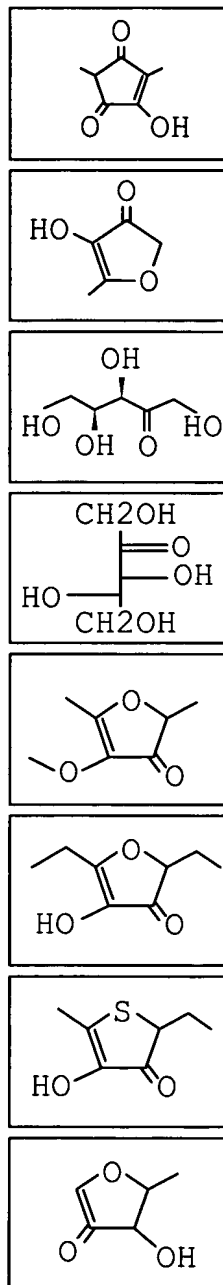


FIG. 33B

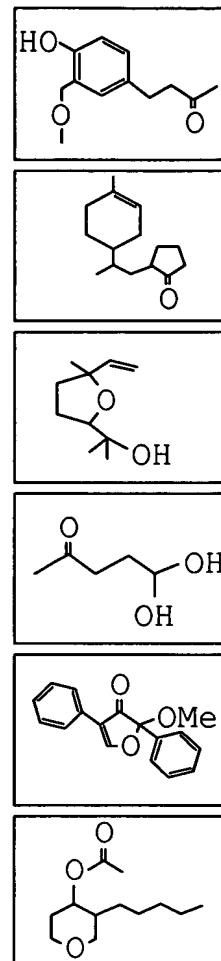


FIG. 33C

FIG. 34

